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[For continuation of "Analysis of Advertisements" see page lxxxix.]

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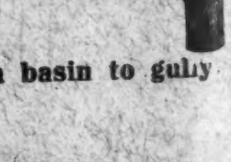

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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV.—No. 4215 NOVEMBER 16, 1923.

INDUSTRIAL RESEARCH.

THE work of the man of science is of importance not only to scientists, but to the world at large, and though this truism is less recognised in this country than in most others it has surely been brought home to the most indifferent during the last decade. Formerly the many practical applications resulting directly from the work of the laboratory were wont to be accepted by the layman without any acknowledgment of their source of inspiration or the discovery of the basic principles upon which alone industrial application can proceed. The war and the stress of competition have changed this attitude. The industrialist is now not only tolerant of science, but of necessity appeals to scientific men to solve the problems by which he is confronted in his search for improved processes and economies in production. As the war has proved, scientists hold the world in their power, and were they to combine could easily direct its fortunes for good or evil. These reflections come to us as the result of the perusal of the Annual Report of the Committee for Scientific and Industrial Research* which gives an account of the year's work in initiating, co-ordinating, and in other ways stimulating research in this country as applied to the practical needs of a vast number of industries upon which the life of the nation depends. The exigencies of national economy which have fallen with so heavy a hand on all Government Departments have not spared the work of this Committee; nevertheless, a perusal of this report reveals a progressive activity which indicates no slackening of effort, and some of the developments which we shall touch upon should have a particular interest for our readers, the developments to which we refer being associated with the Building Research Board. The Department controls such important organisations as the National Physical Laboratory, which has large extensions in prospect, and the Geological Survey of Great Britain, and, besides special Boards of its own, supports research workers and associations by grants of money, and acts as a co-ordinating centre to prevent overlapping and to distribute information. It thus keeps workers in a given field together, though separated geographically; and, more than this, it draws attention to points of contact which experience shows occur frequently in researches of very diverse character. These research associations receive, as a rule, grants for five years, and are warned in this report that except in special circumstances such grants will not be renewed at the close of this period. We read that only one new association has been formed during the year under review, no doubt owing to trade depression and the Government's policy of economy.

Attention should be drawn to the Forest Products Research Board, working in association with Kew Gardens as far as purely botanical matters are concerned, but having at Farnborough a research station at the aircraft establishment. Here a seasoning plant, part of which is on a commercial scale, has been erected, together with a laboratory. Experiments upon warping and twisting under different conditions of seasoning and on sterilisation are being undertaken here, while mechanical tests are projected. For many years the Royal Institute of British Architects has urged upon the Department the need for researches upon dry rot and like diseases in timber which cause such a heavy annual expenditure in repairs, and it is interesting to note that this need is referred to, and the Board "is endeavouring to initiate concerted action in the matter." We hope that this long-overdue endeavour will soon reach fruition, and would direct the Department to an opinion, expressed long ago by the R.I.B.A. Science Committee, that an initial urgent need is to regulate the storage of timber in quantity to prevent the spread of infection. Only this week one of our architect contributors has informed us that he is spending £20,000 on one building, due to the ravages of "dry rot" and "beetle."

The Building Research Board, under Mr. H. O. Weller, continues its activities, and after turning its attention to methods of construction for small houses—which, in passing, we venture to think has shown that ordinary bricks still hold their own—this Board has been carrying out researches on the setting and hardening of cements, on slag and iron cements, and allied problems. Another fundamental research is that on the decay and preservation of stone, but this work is now merged in that of a special committee appointed for this purpose, under the chairmanship of Sir Aston Webb, on which the various aspects of the subject are well represented. The Home Office Committee on Industrial Paints recently recommended, among its findings the setting-up of a committee to make impartial experiments upon paint materials, which investigation will presumably be carried out as to experimental work by the Research Department, which has already made a few tests on special paints. Another important matter brought to the notice of the Department by the R.I.B.A. is the use of plastic floorings, usually magnesite cements; many of those on the market have not proved wholly reliable, and the wide use of these jointless floors calls for some proper specification which will carry a guarantee of reliability. We understand that the Department has carried out investigations in this direction with very encouraging results, which may lead to both cheaper and more satisfactory products for this purpose. Heat transmission through walls and roofs has been under investigation at Teddington and Acton, while the economical firing of brick kilns, the weathering of bricks and tiles, the production of waterproofing solutions and distemper, form other subjects which have come under investigation. Finally, as far as our special interests are concerned, the question of architectural acoustics is coming under consideration, and the sound conductivity of certain materials has been taken up.

Remembering that the work to which detailed reference has been made is only a part of the field of investigation covered by the Department's activities, it may be fairly contended that matters dealing with building and engineering construction are now receiving a suitable share of attention, in spite of the restrictions placed upon activities at the present time. These are days in which no stone can be left unturned to render building operations less costly in the long-sighted aspect of this word. True economy in building means the use of the most efficient materials, and efficiency can only be ensured by a thorough understanding of materials, which involves a scientific knowledge of their properties only to be attained by long and patient investigation. In the past those concerned with these materials have not perhaps been keenly interested in their scientific history, but the difficulties of these latter days should awaken a greater appreciation of what science can do for us. In conclusion we return to the note upon which we began—the great value and weight of scientific investigation, and the elucidation of scientific principles in all things material. For these principles we must look to the trained chemist, physicist, botanist and geologist, and the more support he is given by outside interests the more will his work tend to assist those who give him such support.

*Report of the Privy Council Committee for Industrial Research, 1923. H.M. Stationery Office. Price 4s. net.)

NOTES.

The Influence of Buildings.

TRUE as is the saying that "No man liveth to himself," we are all very apt to lose sight of the significance of the fact; and, sure as it is in regard to our character and acts, it is well to remember how vital a truth it is in regard to our buildings. After a generation is dead the buildings it created carry on their influence for long years after, and much of our vulgar meretricious building of to-day influences the lives of the present generation as well as many which follow. We suppose this only needs to be stated to meet with ready acceptance but it is well that those who are anxious for the production of fine architectural work should ever seek to remind those who have the power to call it into being of their responsibility. The long list of buildings which disgrace our cities, towns and villages largely results through either ignorance or carelessness, and we can only hope for better things when building owners and those who control building designs become really determined to get the best results. People are perhaps more really interested in architecture than architects give them credit for, but, even if they are, that does not imply any ability to know what is the best work or how to secure it. As an illustration of the varying point of view of the public we may note that many buildings are intended to form a conspicuous advertisement for the owners or occupiers, and we can compare this fact with Professor Reilly's statement in the first of his articles on modern architecture in the *Weekly Westminster* that in the eighteenth century "any excessive expression of individuality or of personal importance in a building was considered bad manners." As Mr. Tryston Edwards is writing a book on good and bad manners in architecture we may find cause seriously to question the quality of many modern buildings. We may not all agree as to what constitutes the best architectural expression, but it would be well if a few more thousands of our citizens could be made to take a real interest in the quality of the buildings they see.

Waterloo Bridge.

YET another London bridge is now receiving public attention. Waterloo Bridge, so rightly and so much admired, though of rather gloomy character is one which should on no account be interfered with—our record of modern bridges is much too poor—and we are glad to notice the objections made to any alterations by Mr. H. V. Lanchester in his interview with a representative of the *Observer*. It is not even, as he states, a "safe proposition," while there is every objection to alteration on æsthetic grounds, as any widening scheme must necessarily mutilate its original character. Nor is there sufficient evidence that on grounds of traffic convenience such a change is necessary; while any such scheme may prejudice the far more desirable one of a new bridge at Charing Cross. Mr. Lanchester goes on to suggest—in the interview to which we have referred—as an alternative, a new bridge connecting with the eastern arm of Aldwych by St. Clement Danes' Church which he considers would make "a very nice symmetrical arrangement." We are inclined to think, however, there is real objection to cutting up the river with a further bridge so near to Waterloo Bridge and so obscuring the view, if it can be met in another way, and the scheme for a new bridge at Charing Cross would avoid this and go far to meet the necessary traffic adjustments, without any such disturbance of the open course of the river. The Charing Cross scheme holds the field, and it appears to us that the aim should be to concentrate on this.

Armistice Day.

IT can hardly be amiss to dwell for a moment on the Armistice Day celebration which has just passed with its poignant and tremendous memories for each one of us. For in one sense it is deeply necessary, in considering future prospects, to dwell on more than the economic adjustments, the new markets on which we hope to rely, and we need to beware of too easy solutions and short-sighted panaceas. Something more than the restoration of our economic life will be required if civilisation is to re-establish itself in better ways, in that it was not only our economic but our spiritual life that fell into ruins. And such considerations should appeal particularly to artists, and all those whose work assumes something more to them than buying and selling—for it is through them, through the arts generally, that the leaven must come. In the case of architecture at the present time, for instance, there are problems of great moment if it is to retain its proper freedom, and these ask of us no less than a restatement of our beliefs, a spiritual revaluation of the importance of art to life, and of the claims which our work makes upon us; these are not furthered by genial optimisms. It is only through facing the fundamental issues that art can go forward assured of its service to humanity; and only thus will the artist secure the freedom that his work requires.

Citizenship and Art.

IT is sometimes said with some appearance of truth that citizenship comes before art and that our first duty lies here. But this is only half the truth, for the best citizenship is revealed through faithfulness to the claims of the citizen's work and the demand that this makes upon us is greater. The pride of the tax-paying citizen may become an expensive luxury if he retains his independence at the cost of another world war, and there is a higher aspect of citizenship. What this means for us each one will best interpret for himself, as he understands where his recompense lies; but if we ask where this is to be found, it lies mostly in the things we have forgotten, in service which returns more than self-interest, in a sincerity which captures more than success. This may not lead the arts to wealth as the world understands it, but it will give splendour to art; it will not give ease to the artist, but it might change the face of the world.

Medals and the Machine.

WE are constantly seeking the resource of short cuts to art in the mistaken aim of ignoring its inexorable requirements. Unfortunately for those who, like Sir Edward Iliffe, find in "photo-sculpture" the compromise which shall make it easier for us, there are no such compromises which do not involve the loss of the very quality which can alone preserve art's freedom to expression. Mechanical accuracy—the "faithful reproduction" of a modelled design, whether by the reducing machine or by "photo-

R.I.B.A. Street Architecture Medal, 1923. Mr. Langford Jones, Sculptor.

Presented to MR. CURTIS GREEN, A.R.A., for Wolseley House, Piccadilly, W. *(See our last issue.)*

By permission of H.M. Office of Works.

Pendant to Hammer Beam of No. 2 Truss, South Side, Great Hall, Hampton Court Palace. (*See p.* 760.)

sculpture" will not help, as is wisely pointed out by Mr. Steward in his letter to *The Times*. You must have the artist everywhere in a work of art, and there are no substitutes by which you can reach art without him. And it is just because of this that our medals remain commonplace and without artistic intention. The machine does not feel, is not inspired, though a useful servant to man in other ways, and it is because we forget this we continue, in Sancho Panza phrase, to look for a cat with two tails. The remedy so well pointed out in the letter to which we have referred lies "in the employment of capable artist-engravers, or the combination of sculptor and the engraver who is capable of realising the artistic intention of the designer." Happily the sense of this need is growing, and it will gradually supersede the fiction of "short cuts" and the fallacy that through mechanical reproduction we can reach art.

British Museum Lectures.

JUST as we notice the intensified perception of sound in primitive races, so also is seen an alertness of observation; the eyesight revealing much that escapes the ordinary person in a more advanced civilisation. Miss Claire Gaudet, who continues her interesting lectures on recent archæological excavations, illustrated this intensified observation in the case of the scratched outlines on stones representing animal life in the F int Age. These suggest attitudes and quick movements of animals, such as we only find revealed through the retarded photograph, and which our eyesight does not ordinarily perceive. Her account of the development of building in Egypt shows how the natural form of the material governed the appearance. Building first in mud and reeds—reeds or palms bound together and coated with mud—the ties of these formed a waist at either end, and when they ceased to build in these materials, and used stone, they reproduced a similar form, such as may be seen in the columns of temples, and so we are able to trace the original natural source from out of which grew the more advanced building. The form having grown out of the material, it continued to influence later developments. The Egyptians measured their time by Sothic cycles, that is the revolution of the Dog-Star, which takes 1,460 years. Much interesting information was communicated by the lecturer concerning the tomb of Osiris at Abydos. This tomb, measuring 30 by 20 metres, was built of sandstone, in great blocks worked with much finish. It is expected that further work at Abydos may prove very important, as much material may exist down the wells not yet explored.

A Durham Badge.

THE illustration of the Chairman's Badge of Office, which we give this week, shows the badge presented by Sir Frank Brown, formerly Chairman of the Durham County Council, to the Council for its future use. It is executed in gold and enamel by Mrs. K. W. Adshead-Austin, from a design by Mr. H. V. Lanchester, of Messrs. Lanchester, Lucas & Lodge. The centre shield is that of the Palatinate of Durham with gold cross and lions argent on a blue ground. A plain cross is used instead of the cross patonce, or the cross fleury, as being more appropriate to the badge of a civil body. The ship surmounting the shield is an indication of the port and shipbuilding interests of Durham; while on each side a miner's pick and shovel and the miner's lamp below indicate the major industry of the county. The date is that of the foundation of the County Council, and their monogram appears on the small patera from which the badge hangs. The turquoise margin may be regarded as a symbol of the four beautiful rivers that flow through the county, and it will be noticed that it appears in four sections divided by the devices already mentioned. The blue selected is that usual in heraldic work, slightly varied in the direction of the Palatine purple. On the back of the badge is an inscription recording its gift to the Durham County Council.

Durham Badge.
Designed by MR. H. V. LANCHESTER, F.R.I.B.A.

By permission of H.M. Office of Works.

Pendant in No. 3 Bay, South Side, Great Hall, Hampton Court Palace.

GENERAL NEWS.

Professional Announcements.

Mr. Cyril A. Farey, A.R.I.B.A., has removed to 19, Bedford-square, W.C.1. (Telephone: Museum 2420.)

Mr. J. Haigh Baxter, A.M.Inst.C.E., civil engineer and architect, has removed from Muslin-street, Newton, to Norfolk-street, Market-place, Hyde, near Manchester.

Appointment.

Mr. G. B. Lockwood, Deputy County Surveyor to the West Riding County Council, has been appointed County Surveyor to the Cumberland County Council.

Architect's Estate.

Mr. W. P. Park, of Ashton-upon-Ribble, Lancs, retired architect and surveyor, left estate valued at £16,328.

The Rebuilding of Ypres.

On Monday, November 19th, at 8 p.m., Mr. G. Topham Forrest, F.R.I.B.A., the Architect of the London County Council, will read a paper on "The Rebuilding of Ypres," illustrated by lantern slides, showing the city as it was in August, 1914, as it looked in November, 1918, and as it now is after the process of restoration has been largely accomplished. A number of distinguished guests have accepted the Council's invitation to be present, and it is hoped that there will be a large attendance of the general public. The lecture will not be of a professional or technical character. The lecture is one of the R.I.B.A. general meetings, and will take place at No. 1, Wimpole-st., W.

Registration as Probationers R.I.B.A.

On the recommendation of the Board of Architectural Education the Council of the Royal Institute has decided to accept, as the standard of general education required of applicants for the Probationership R.I.B.A., the certificates (covering the required subjects) of the following "Second Examinations" approved by H.M. Board of Education: The Higher School Certificate Examination of the Oxford and Cambridge Schools Examination Board; the Higher School Certificate Examination of the Oxford Delegacy for Local Examinations; the Higher School Certificate of the Cambridge Local Examinations and Lectures Syndicate; the Higher School Certificate Examination of the University of Bristol; the Higher Certificate Examination of the University of Durham; the Higher School Certificate Examination of the University of London; the Higher School Certificate Examination of the Northern Universities Joint Matriculation Board; the Higher Certificate Examination of the Central Welsh Board.

Obituary.

We regret to announce the death of Mr. E. J. Bennett, A.R.I.B.A., of Gravesend, which occurred on November 2. Mr. Bennett was a pupil of Messrs. Habershon & Pite, and was for some time in their office at Newport, Monmouthshire. He entered the office of Mr. H. D. Searles-Wood in 1881, and started practice on his own account in Gravesend in 1898, where his principal works were carried out. He also designed a house for the Right Hon. A. H. D. Acland, at Felixstowe. A correspondent writes, "Mr. Bennett was a careful and conscientious architect, and his work was a great pleasure to him; if possible, at times he was a little over-anxious about it. But all his buildings are excellently designed for their purposes and skilfully carried out."

The death has taken place of Mr. William Bevan, Coity Fields, Bridgend, who formerly held the post of Surveyor to the Bridgend U.D.C.

The death has occurred of Mr. Ernest Flint, F.R.I.B.A., of 80, Coleman-street, E.C.2.

Portrait of Mr. Paul Waterhouse, PP.R.I.B.A.

By SIR WILLIAM ORPEN, R.A., unveiled at the Inaugural Meeting of the Royal Institute of British Architects last week. (*See our last issue.*)

Spandrel to Truss, Great Hall, Hampton Court Palace. (*See p.* 760.)

COMPETITION NEWS

National Painters' and Decorators' Joint Education Committee.

ANNUAL PRIZE COMPETITION, 1923 (LONDON).

Preliminary Class: Section 1 (Freehand Drawing), 1st prize, A. R. Turner; 2nd prize, R. J. Lawrence; 3rd prize, H. W. Howlett; special prize, A. Writer. Section 2 (Geometrical Drawing), 1st prize, R. J. Lawrence.

Class I: Section A (Plain Painting), 1st prize, W. H. Wallington; 3rd prize, H. E. Bishop and R. G. Bristow (divided). Section D (Drawing), 3rd prize, E. G. Osborn.

Class II: (Plant Form), 1st prize, L. F. J. Tubb; (Graining), 2nd prize, W. E. Sharpe; (Theory), 1st prize, C. P. Sharp.

Class III: Section Q (Sketch Book), 2nd prize, L. G. Taylor; 3rd prize, W. R. Yates. Section R (Coloured Drawings), 3rd prize, W. R. Yates. Section T (Stencilled Pilaster), 1st prize, W. R. Yates. Section Y (Plain Painting), 2nd prize, L. G. Taylor. Section Z (Theory), 3rd prize, L. G. Taylor.

Class IV: Section 1 (Plain Painting), 2nd prize, H. J. Okill. Section 2 (Colour Combing and Scumbling), 1st prize, H. J. Okill. Section 3 (Graining), 2nd prize, H. J. Okill.

Institute Prize: Highly commended, C. E. Minett.

Scott Prize: 2nd prize, G. Norris.

Special Prize: C. Minett.

Essays on Concrete.

The Concrete Utilities Bureau, of 35, Gt. St. Helen's, E.C. 3, has instituted two competitions for essays on the uses of concrete in agriculture. Sending-in day, December 31. (See our last issue, p. xcvi.)

Edmonton.

Designs for a war memorial for the Edmonton Urban District Council at a cost not exceeding £600. Sending-in day: November 26.

Ryde Pavilion Competition.

The Council of the Royal Institute of British Architects has expelled a Licentiate for taking part in this competition, which had been banned on the ground that its conditions were not in accordance with the Regulations of the R.I.B.A.

New Law Courts, Cairo.

Members of the R.I.B.A. are advised to take no part in this competition until the conditions have been revised.

Other Competitions.

For competitions open see our last issue.

CORRESPONDENCE.

Cambridge Collegiate Buildings Competition.

SIR,—The award recently given out in this limited competition, to which the undersigned architects had the honour to be invited, raises once more the fractious question of the assessing of competitions in this country. In this case the result is thrice unfortunate, since it throws a burden of responsibility and of unfairness, not yet removed, on the King's College authorities, the assessor, and the competitors.

Briefly put, the gist of this particular competition is, we believe, as follows: For quite a time King's College has been in need of more chambers for its undergraduates, and of a new library. It decided to put the entire question in the hands of a Building Committee of its own, under the chairmanship of one of its most distinguished Fellows, Mr. Maynard Keynes. The members of this committee came to the conclusion that they might well secure results more in accordance with the spirit of the times if they addressed themselves to young architects.

An assessor of unquestionable probity was called in, who, we understand, was specifically called to report upon the planning and the technical character of the designs submitted; the Building Committee, placing confidence in its ability to judge the artistic merits of the elevations, reserved to itself the right of ultimate choice. The proposed new buildings are to stand on one of the most important sites of Cambridge, namely, on one of the sides of the lawn girdled by Clare College, King's College Chapel, and Gibbs' "Fellows."

The designs were sent in, the assessor reported on their planning, and the award was then made Now, after examining all the designs, it seems clear that something went amiss. First of all, we are bound to say, in all due respect, that the assessor took upon himself a great deal of responsibility when he elected to recommend the two schemes placed first and second. With regard to the first, the plan has certainly the advantage of having but two staircases, which, on the face of it, are fairly well lit, but the winners were able to place them as they did at the cost of violating a condition thought to be highly desirable, *i.e.*, that six sets of chambers should be provided on all upper floors, and as many as possible on the ground floor. The winners provided 20 as against a possible 22—a regrettable weakness far outweighing the gain of light to each staircase. It should not be overlooked that other designs had all their stairs equally well lighted, so we fail to understand the recommendation of the assessor being chiefly based upon this adequateness of the winners.

The design placed second has the demerit of having two staircases facing Bodley Quad, and a third facing the lawn, though, to be just, the entrance to the third is in the passage leading from the lawn to Quad. The lighting to this entrance is exceedingly precarious, and its approaches inconvenient.

As we understood it, the Committee, in its turn, took the responsibility to endorse the assessor's judgment, but seemingly it did so without probing at all deeply in the difficult question of artistic merit of all the designs, and the result is that a façade—indeed unfortunate—may soon face Clare and rob Gibbs' "Fellows" of its legitimate prominence. The treatment favoured by the winners carries the scale and fenestration of Gibbs' on the new side, but the bulk of the proposed new buildings is so great that such treatment will overwhelm Gibbs' for ever. This façade, moreover, has the fatal weakness of being throughout insincere. Nowhere on its wings does it express its contents. Is it possible that the Building Committee of King's College—whom we give credit for the intention to secure a noble building—is it possible that it realised the character of a façade with windows of different sizes lighting rooms of identical dimensions, with the window of one "gyp" being a mere long, narrow aperture, whilst the one next to it assumes the very proportion of the largest windows of Gibbs' itself, of substantial chimney breasts resting over voids? These discrepancies are due to the planning and treatment followed by the winners, and good modern planning will always turn its back to anything not straightforward or sincere. Such blemishes are not minimised, if we may say so, by the liberal sprinkling of "period" *motifs* made to punctuate both elevations. To reshuffle knowledge rarely increases its value, so to speak, and it is not likely the knowledge of *motifs* made available in this way will be appreciated in the future.

The Building Committee, by its well-meaning but confused action, has once more accentuated the plight of competing architects. No surer way of sapping their confidence could be found than the one which allows conditions laid down in the schedule to competition to be ignored by some of them with impunity, or overlooked by the assessor, who had a hand in drafting them. It is disappointing enough with the usual kind of buildings; it is little short of heartbreaking when the problem to be solved is so pregnant with fine possibilities. To revert to this particular instance. had the Building Committee sought an architect, or, better still, a jury of three architects known, beside their integrity, for their independence of judgment and ability to scrutinise planning and æsthetic considerations, it would have saved itself much of the doubt bound to creep in as reflection operates, and saved most competitors from the paralysing mistrustfulness engendered by unsatisfactory assessing.

THOS. S. TAIT.
GORDON H. G. HOLT.
VERNER O. REES.

"Charlatans and Pests."

SIR,—A medical student, alleged to have practised as a doctor before he had passed his final examination, has recently been denounced by the Woolwich coroner as a "charlatan and a pest." Had such a man chosen to practise as an architect he could have duped the public to his heart's content, without hindrance from the professional organisations or anyone else.

If a "charlatan" is to be defined as a man who practises a profession in which he has passed neither qualifying examination nor received recognised training, then the number of "charlatan architects" must be large, as it is an acknowledged fact that the majority of plans passed by borough and urban councils are prepared by men who have no recognised qualifications.

At present most local authorities employ men as engineers, medical officers, accountants and sanitary inspectors, who hold the recognised qualifications of their respective callings. The architectural department, however, has, in the majority of cases, no qualified chief, but is merely a side line to the duties of the engineer.

The letters "A.R.I.B.A." and "M.S.A." convey little to the man-in-the-street, and any others, such as "X.Y.Z.," would, to many, convey as much. Recent enquiries were made from several people as to what professions "A.R.I.B.A." and "M.S.A." belong, and, not knowing, the guesses were associated with accountancy. Yet "F.I.A." was no "poser" at all owing to the letters continually appearing in the advertisement columns. Auctioneers may advertise, estate agents always advertise, and all these may practise as architects. The architect who is fortunate (*sic*) enough to be a member of either the Royal Institute or the Society may not advertise, neither is he supposed to act as an estate agent, auctioneer or business broker; he is, therefore, competing on most unequal terms with others, being unable to practise in their callings yet being trampled on by them in his own.

It is interesting to note what the governing bodies of architects (G.B.A.) are doing for their members in the matter of this competition. Are the "G.B.A." advertising in any way that A.R.I.B.A.'s and M.S.A.'s are capable of designing houses and other buildings as efficiently as men trained in other callings! No! Do the "G.B.A." write circular letters to local authorities suggesting that architects should be placed in charge of architectural work, and that if a qualified sanitary inspector is necessary then a qualified architect (no capitals) is desirable? No! Have the "G.B.A." ever made a statement to the effect that the slum areas now being demolished as insanitary were not in every case designed by their members? If so, has this statement ever reached the general public? No!

Are the "G.B.A." too busy discussing questions of academic dress to consider removing all restrictions from members desiring to compete with auctioneers, estate agents, and others on equal terms? The present state of affairs, by which the only man not permitted to advertise himself as an architect is the qualified man, is ludicrous. C. F. OVERY, M.S.A.

Training for Decorators.

SIR,—My attention has been drawn to a report in *The Builder* for October 26 of a speech made by myself at the dinner of the Institute of British Decorators. There is some confusion as to the two points I wished to make. The first was that the trade should make itself responsible for the thorough vocational training due to apprentices. Few art schools are in a position to afford or can obtain the technical instruction needed for mastering the many trade processes. I suggested that it was advisable that an industrial student, before visiting an art school, should have an efficient preliminary craft training. The business of a school of art is to relate this intensive vocational practice to the true values which are common to all the arts, and to broaden the student's outlook on the world.

It was in reference to the criticism I ventured to make on the more ambitious work done by the trade apprentices that I touched on a second point. This was a plea for the most enlightened education possible for the students who distinguish themselves, which should go beyond a mere training in processes. Here artists, professors and teachers can be of signal assistance, and can help the decorator to paint what he means and to mean what he paints.

While hoping that these students, after receiving the more humanistic education our schools of art should offer, will return to the industry, I was careful to point out that we have, happily, no caste system in this country, and the Institute must be prepared, in providing scholarships, to find some at least of its most gifted apprentices aiming at the highest branches of decorative painting.

Royal College of Art. W. ROTHENSTEIN.

Ivy on Somerset Church Towers.

SIR,—A year or two ago I wrote to *The Builder* calling attention to the foolish practice of covering the details of our beautiful old towers with ivy. Your readers will be interested to learn that nine of the towers in question have now shed their coat of ivy. The youngest growth was fifty years' old and two of the oldest were one hundred and twenty years. There is still one famous tower to be dealt with, that is Huish Episcopi, near Langport. This, I hope, will be cleared away by Christmas.

EDWARD VALE.

Weston-super-Mare.

Other Letters.

A letter on architectural competitions is given on p. 770; others are unavoidably held over.

The City Churches.

In a letter to *The Times*, Mr. J. Alfred Gotch, P.R.I.B.A., states that the R.I.B.A. protests against the proposal to demolish any of the City churches and pledges itself to do all in its power to prevent the demolition in the capital of the Empire of buildings which are of great historic value and artistic interest.

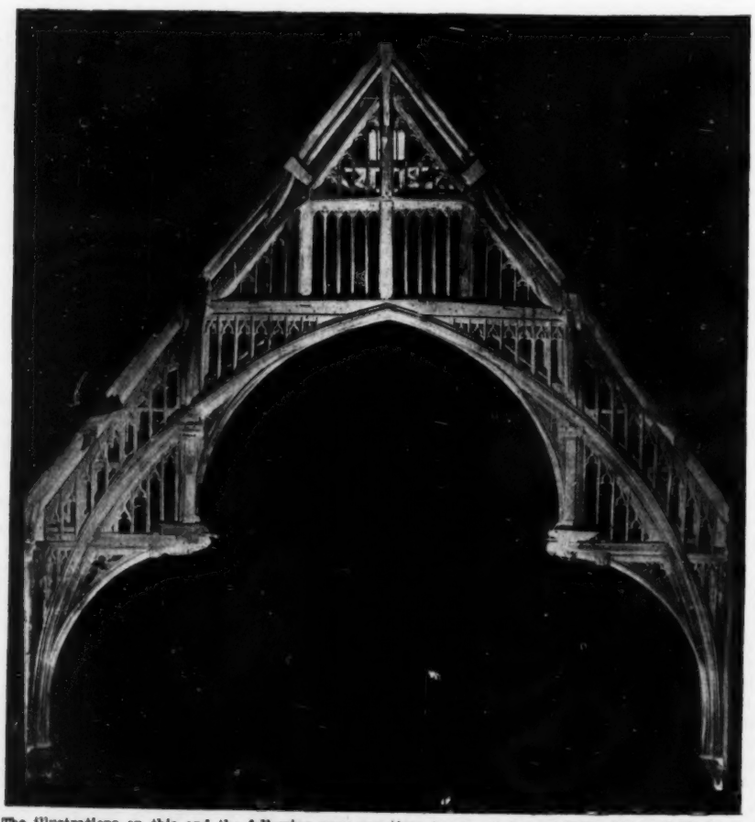
Westminster Hall Roof: Terminal Figures to Hammer Beams of Roof Trusses.

WESTMINSTER HALL.

WESTMINSTER HALL, the scene of so many events connected with the English Parliament, was a fitting meeting-place for the members of the Empire Parliamentary Association assembled to hear an account, on Monday, of its history and preservation, delivered by Sir Frank Baines, C.V.O., C.B.E., Director of Works, under whose supervision the recent works of repair have just been brought to a successful conclusion.

The Speaker of the House of Commons (the Right Hon. J. H. Whitley, M.P.) in introducing the lecturer, appealed to any person in the audience who found himself financially in a position to do so, to come forward and provide the funds necessary for the publication of the valuable records which have been amassed during the repairs of the Hall and through the investigations into its structure and history which have been carried on concurrently with them. Government departments, he said, were in too penurious a condition to spend public funds for this purpose though the extraordinary interest of the subject would be made apparent in the course of the lecture.

The history of the Hall was introduced by the lecturer in a novel fashion. On his mentioning the Norman masonry remaining in the side walls of the building from the time of its original construction by William Rufus, in 1097–1099, some electric lamps were made to throw a flood of light upon examples of Norman columns, capitals and arches to which access doors had been provided in the otherwise uniform stone-sheeted surface of the walls. These veritable fragments of eleventh-century work gave very great additional interest to the illustrations thrown upon the screen of drawings compiled from them to show the beautiful arcades which decorated the walls and the wall passages which provided for access along their entire length in the Norman period. These arcades, or rather the portions of them which still exist in a shattered condition hidden behind the stone veneer which, since the time of Richard II, has been applied to the inner faces of the walls, were brought to light and investigated during the course of the repairs. Their presence in the walls, unbonded to the surrounding work, with large cavities under the principal supports of the roof, raised a difficult problem, since the pressures on the side walls were great and the total weight of the new steel trusses was expected to amount to some three hundred and thirty tons. A plan of the Hall, showing the positions of the Norman fragments in relation to one another and to the later work of Richard II, indicated the haphazard methods of setting out considered adequate in the Red King's palace. Similar details in the arcades in the two opposite sides of the Hall are by no means opposite to one another, and it is quite possible that the main timbers of the Norman roof were arranged slantwise across the Hall. (See an article by Mr. William Harvey in our issue of January 5, 1923.)



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Composite Elevational Photograph of one of the Trusses after Repair, and after the Steel Reinforcement had been fixed; the latter is practically invisible.

The great width of 69 ft. was not roofed by the Normans without intermediate supports, and a view showing the conjectured appearance of the Hall in Norman times exhibited lines of heavy posts rising from the floor and dividing the span into three portions of manageable dimensions. The size of the Hall is remarkable since it is approximately 240 ft. long and 92 ft. high to the apex. William Rufus, replying to the criticism of his courtiers that the building was too large, is reported to have said that it was but a bed-chamber compared with the Hall he proposed to build for himself.

As is so frequently the case with architectural works, great size is not always recognisable, and the bare side walls of the Hall with their dull linings of Huddlestone stone dwarf the gigantic timbers above. The grandeur of the building shone out, however, when at intervals throughout the lecture the upper lights were extinguished and the warm tawny colour of the giant beams was made to glow in rays of light directed upwards from lamps supported in positions near the floor.

Turning to the works of repair (almost of rebuilding, since the Norman walls were mercilessly cut to pieces) instituted by King Richard II, the lecturer explained that, despite a popular tradition that the roof was constructed of chestnut wood, it is really composed, as the records show, of English oak obtained from the King's Park of Odiham, the Abbot of St. Alban's Wood at Bernan, and a wood by Kingston-on-Thames. The rich warm colour of the surfaces is due to a harmless fungoid growth which does not penetrate to the interior of the wood. The pattern of this unique structure was due to the King's master carpenter, Hugh Herland, who seems to have been about seventy years old at the time he produced this astounding design. Gothic masons produced their masterpieces as

the result of a process of trial and error extending throughout centuries, but there was no evidence of a similar roof of anything like the same dimensions having existed to guide this original genius who must have created his new work in accordance with the foreseeing spirit of scientific calculation.

His assurance in daring to place great oak baulks, weighing from three to four tons apiece, high up in the air, was wonderful, and the supporting of each mighty hammer post upon the back of an angel apparently flying freely in the air was a stroke of pleasantry of which we could not sufficiently admire the wit.

The brief analysis of the functions of the timbers which was practicable in a limited time and before a general audience was in substantial agreement with an account published in our issue of June 22, 1923, where the nature of Hugh Herland's building science, his constructive genius, and his audacious humour, have already been set forth.

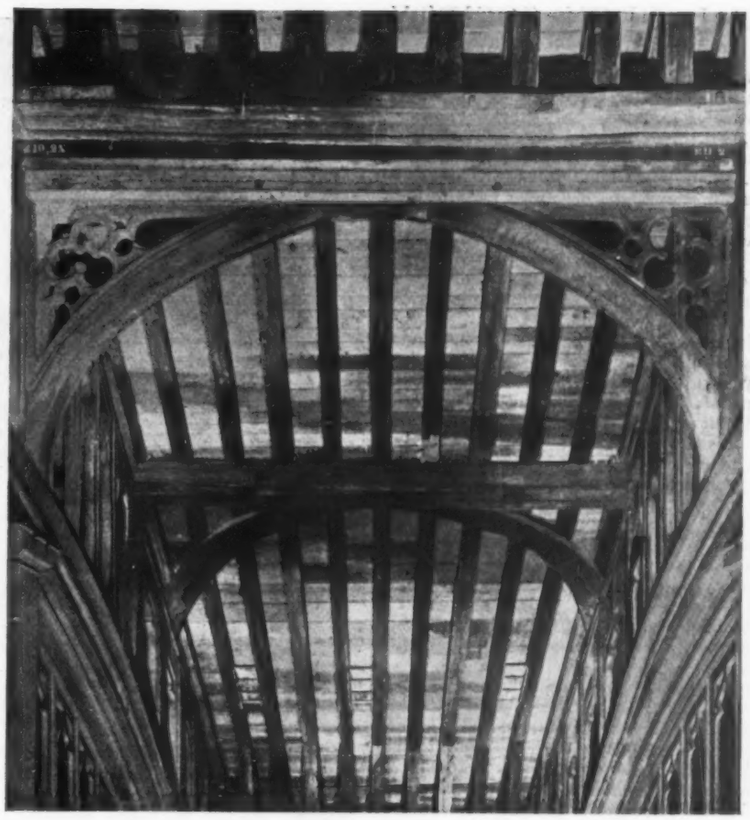
The decay and repair of the timber roof was illustrated by a series of lantern slides, in which the life history of the Death Watch beetle and the almost unbelievable extent of its ravages were made apparent. One difficulty which faced the conservator was the inability of the authorities to recognise the dangerous nature of the decay. The plain facts were treated as alarmist rumours, and the roof pronounced by otherwise sober and truthful persons to be quite reasonably sound. The difference of opinion was sincere, but optimists had allowed themselves to be deceived by the specious appearance of soundness in the outer crust of the timbers which had been preserved practically intact owing to the peculiar habit and life history of the beetle about which little was known at that time. The larva, or woodworm, burrows for a period of something like three years in the interior of the wood before making its one flight hole on the surface. Even then, the flight hole is often in an obscure and inaccessible part of the roof, so that there is absolutely nothing to show for its three years of dangerous activity.

Former repairs to the roof had very seldom been efficient, though some stout baulks had been added to the purlins at an early period and fixed to them with curious slotted bolts with wedge-shaped keys and washers instead of screw threads and nuts. As time progressed, the repairs grew more futile and burdensome, and the lecturer was able to point out that the roof to-day was as free from obtrusive patches and repairs as it had been at any time for the last two hundred and fifty years.

The present method of upholding the decaying timbers was selected with a view to retaining as far as possible all the genuine ancient work. It had been objected that the use of steelwork was inappropriate to the sentiment and to the ancient principles of construction, but without the use of steel 90 per cent. of the old worm-eaten timbers would have had to be replaced. By means of the new steel trusses, 90 per cent. of the old woodwork had been preserved. A possible alternative method of repair would have been to insert patches of new wood as and where required and to strap and bolt them together with steel fish-plates. It was well that this fragmentary method was not adopted, since the decay proved to be far worse than had been anticipated, and the strength of the resulting patchwork would have been problematical. Proof of the necessity for a complete steel truss to each old principal of oak was supplied by the breaking of one of the corbels supporting a wall post of the fifth truss from the north end of the Hall. The old patched and disjointed timbers had reached a stage of decay when movements took place which threw all the weight of the wall post on to the free end of the corbel and fractured the mass of solid stone by the excessive pressure and leverage.

An interesting feature of the lecture was provided by the exhibition of a specially prepared cinematograph film explanatory of the construction of the roof. The jointing and assembling of the timbers was demonstrated in a very convincing manner by means of a moving picture showing the various members of a carefully prepared model being placed in position in relation to one another. This idea is excellent, and the present film might be improved upon by having the timbers of the model assembled in the order that must have been followed in the construction of the roof itself. A remarkable series of moving pictures of the larvæ of the Death Watch beetle at work gnawing and tunnelling into the oak and of the adult beetle walking upon the surface was also shown. Decay in the various joints of the structure was made comprehensible in a similar way.

The film ended with a view of Their Majesties the King and Queen at the reopening of the Hall to the public after the completion of the repairs.



One of the Bays after Repair, and after Steel Reinforcement had been fixed.

Boss to Label Moulding of Window in West Bay, South Side.

THE LEICESTER GALLERIES.

There is so much to be seen in the galleries just now that it is not easy for the picture-goer to fit his time to the best advantage. The beautiful decorative drawings by George Sherringham, at the Leicester Galleries, should not be missed, for they represent something of the best we can find to-day in small decorative pictures. The artist has in most cases made his frames a valuable integral part of the effect. Many charming colour harmonies and elaborate dainty drawings are to be found here, and yet when Mr. Sherringham gives us a simple decorative transcript of landscape in ochre and black he is also wonderfully successful.

Boss to Label Moulding of Window in West Bay, South Side.

THE LONDON SOCIETY.

HAMPTON COURT PALACE.

AT a meeting of the London Society held on the 9th inst., in the lecture hall at 18, John-street, Adelphi, Sir Frank Baines, C.V.O., C.B.E., addressed a large and interested audience on the subject of Hampton Court Palace, where the Great Hall of King Henry VIII is now being repaired under his direction. The speaker did not, however, deal with these specific repairs, but traced the history of the palace in a critical and descriptive account which enabled his hearers to form some idea of the characteristics of works of different periods in the building.

Calling attention to the fact that the Tudor palace at Hampton Court, as built by Cardinal Wolsey and enlarged by King Henry VIII, was one of the last great architectural works carried out under the guild system of the Middle Ages, the lecturer illustrated, by means of excellent plans and views, the artistic freedom resulting from the direct employment of masters in the various crafts to design themselves the work they were about to carry out. Such references to the guild system were received with applause by the audience, and whatever uncertainty may exist as to the exact conditions of the building trade in King Henry VIII's time the remaining work of the period undoubtedly exercises a great charm upon the present-day public, including both those members of it who are specially trained in the appreciation of the arts and those who are guided by their own good pleasure as sightseers. The extraordinary carved pendants of the oak roof to the great hall were rightly held up as examples of freedom in craftsmanship. Their exuberant detail implies corresponding enthusiasm on the part of the carpenter artist, who seems to have both designed and carved them.

These are not isolated or exceptional instances, but take their places in a scheme where construction and ornament, planning and execution, all embody a similar spirit.

Craftsmanship had outgrown the fetters which had bound it to the expression of rigid constructional truth during the Gothic period, and from this point of view decadence must be admitted. Comparing the elaborate roof of the hall at Hampton Court with the much larger and much simpler roof erected at Westminster Hall in 1394–99, where every timber, including the ornamental tracery, performs a structural function, Sir Frank confessed that the Tudor roof was not so fine as the Gothic. But, though fancy had been allowed to run riot, the lavish decorative detail in carving and gesso covered with gilding and bright applied colour was magnificent in its own way. And that way was the way of freedom, since obedience to the rigid rules of columnar architecture which were to be imported from Italy at a slightly later date had not yet been enforced.

Just how far the master craftsmen were the designers and how far the general scheme was directed by the Cardinal or King we are never likely to know, though it is probably safe to assume that the freedom of the craftsman from the necessity of following the design of an architect could only be attained in an age when the building owner himself knew much more about the building art than do most intending building owners at the present day.

The records show that the Cardinal and the King supplied the materials necessary for the work, and this fact alone bound them to a much more intimate knowledge and interest in the design than the interest of receiving the building upon its completion.

The names of the craftsmen recorded in the accounts are nearly all English, for although the Italians Giovanni da Majano and Benedetto da Rorezgano were brought over by Wolsey in 1521 they were chiefly employed upon ornamental works, such as the terra cotta roundels and busts of the Roman Emperors which decorate some of the exterior wall faces.

These evidences of the foreign artist are all applied works and do not form an integral part of the structure, differing in this respect from the greater part of the native work where the divorce of structure and ornament, although imminent, was not yet complete. Sound architectural design in which construction and artistry were inextricably blended together is in evidence in the Tudor kitchen with its immense fireplaces and their fine brick chimneys. Remarking upon the beauty of the orderly diminution of the flues from the great arched openings to more moderate dimensions at their upper extremities, the lecturer pointed out that their design consists in the adjustment of material to meet a practical problem rather than the composition of elevations upon a drawing board. The intervention of paper plans and the professional architect who produced them was, he said, by no means an unmixed blessing.

The beginnings of the pernicious modern system of employing rough construction hidden beneath a more finely wrought visible shell of ornamental features was to be seen in the Palace Chapel, where an elaborate wooden vault of great beauty, if considered as modelled form or painted decoration, was really nothing more than a suspended ceiling below the supporting timbers of the roof.

It is possible, said the lecturer, that the designer of this fan tracery in wood may have been Clement, the master carpenter, who designed and executed the roof of the Great Hall, and it is evident that he was familiar with the somewhat similar stone vault of the Choir of Christ Church, Oxford.

The constructional propriety of the delicate stone vault placed upon the old piers of the Church with full knowledge of the statical problems involved is, however, entirely absent from the timber counterfeit at the Palace Chapel.

The Renaissance style substituting the rigid rule of adherence to the Classic orders, with their pretence of structural interest in place of the appeal of genuine necessary construction, soon followed upon the period of freedom and imposed a formality none the less exacting in that it was artificial and only interpreted the natural laws of building science through the foreign tongues of ancient Greece and Rome

The works designed by Sir Christopher Wren, forming part of the remodelling of the palace inaugurated by the magnificent taste of William and Mary about 1689, fortunately escape from the harshest rigours of the revived classic rule. Sir Christopher Wren as a designer invariably showed himself to be a man of infinite common sense as well as a scientist and antiquarian, and his work at Hampton Court cannot be fairly criticised as an attempt to imitate the glories of Versailles upon a somewhat smaller scale, whatever may have been the intention of the architect's royal patron.

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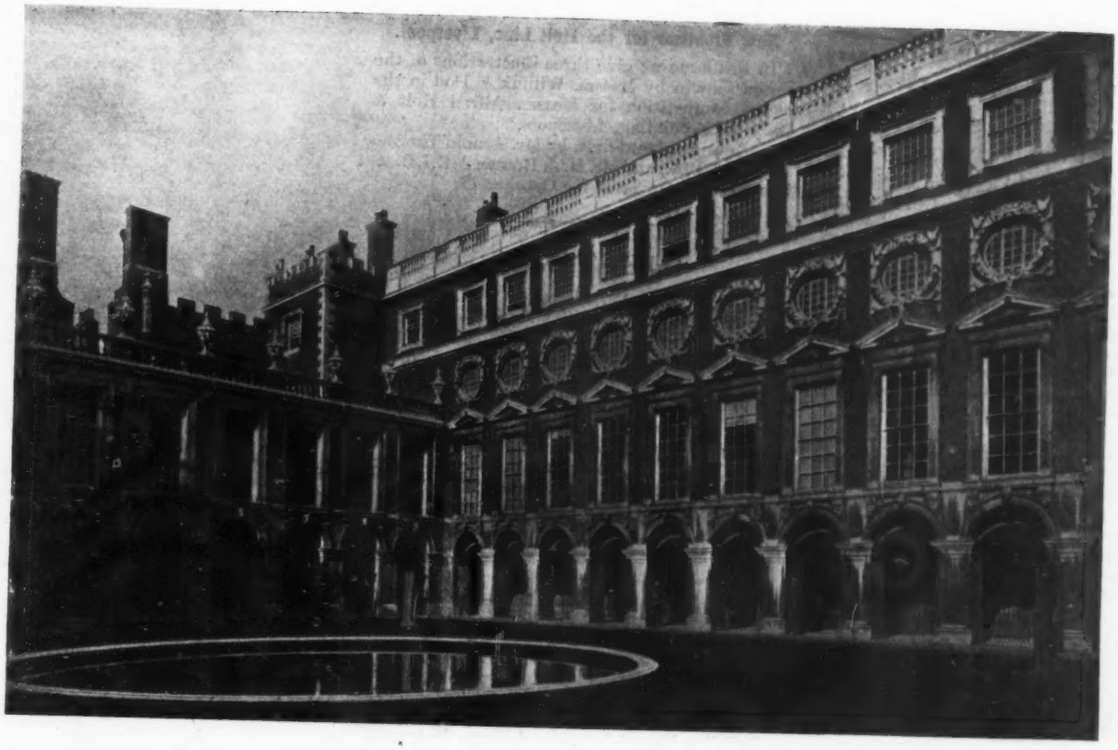
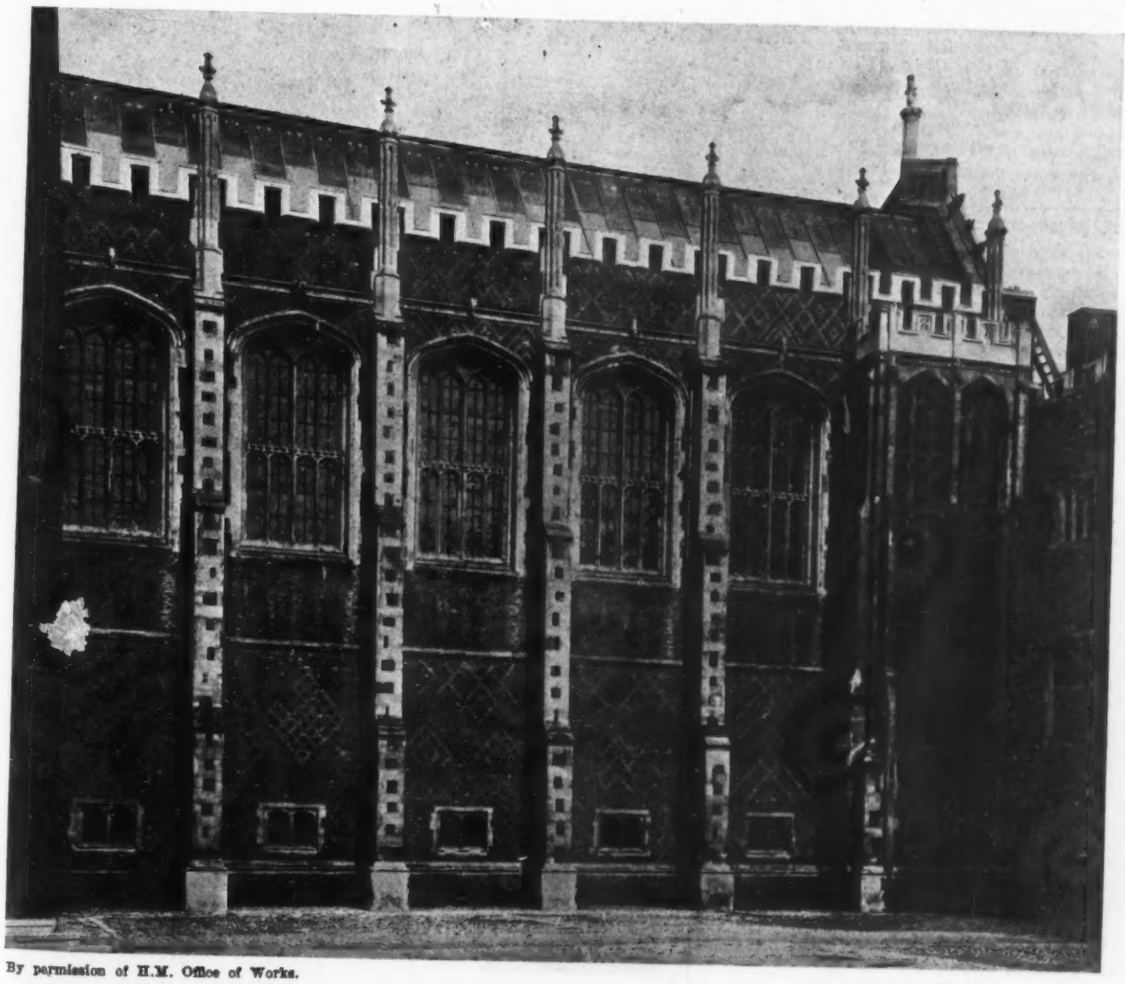
Chapel Cloister, Hampton Court Palace.

Some of the problems involved in Wren's alterations were indicated by plans and views projected upon the screen. The dimensions of the old cloister green court fixed the position of the new Fountain Court, but the existing long canal of ornamental water in the park governed the axis of the new entrance, which was of artistic necessity made to face directly down the long avenue of water and foliage. The difference between the centre lines of the court and the canal is considerable, but has been so carefully disguised by Wren as to pass unnoticed. The heights of the new buildings around the Fountain Court were also evidently adjusted to the dual considerations of external symmetry and internal convenience, since the western range has been kept low on purpose to admit ample light and air to the courtyard and its surrounding rooms. Architecture was in a vigorously creative mood in Wren's time and respect for historical buildings as such had not yet come into fashion. Some important parts of the Tudor palace, including the Long Gallery with its great bay window, were swept away to make room for the new work. While lamenting the loss of this prototype of the long galleries, which were to become so popular in succeeding reigns, the speaker expressed his satisfaction that so much of the Tudor work remained. A plan for still further remodelling the palace by Wren, in which the Tudor Hall would have been retained only as a vestibule, was never carried out. They could not have too much of Wren's delightful architecture, but they should prefer it to be placed where it would not destroy or come into competition with other historical buildings: a sentiment with which the audience evidently concurred. The power of Wren to collect together and work in harmony with a band of experts in sculpture, carving, ironwork and painting, impressing upon them his general scheme, yet allowing them freedom of individual expression, is in evidence throughout the beautiful State apartments planned by this extraordinary man, with whose well-known words the lecturer closed his address:

"If I glory," said Wren, in his old age, "it is in the singular mercy of God, who has enabled me to begin and to finish my great work so conformably to the ancient and true model."



FOUNTAIN COURT.



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SOUTH SIDE OF GREAT HALL.

Hampton Court Palace. (*See p.* 760.)

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ILLUSTRATIONS.

University College, Bangor.

Mr. Alan E. Munby, M.A., F.R.I.B.A., is the architect for the new Science Buildings—Agriculture and Administration Departments—University College of North Wales, at Bangor. The cost is estimated at £66,800. The front will be faced with Portland stone. Internal walls and partitions will be of sand-lime bricks, and considerable use will be made of asbestos-cement pipes for drains. The heating will be by low-pressure accelerated hot water. The total floor space will be about 60,000 sq. ft. The foundation stone was recently laid by the Prince of Wales.

223, Regent-street, W.

This building has been erected by "Isobel," the well-known dressmaker, by whose courtesy these photographs are reproduced. This structure forms part of the general Regent-street reconstruction. The contrast between the black marble base and the Portland stone superstructure is very striking.

The whole of the shop front has been designed with considerable restraint and the silver-bronze shop frames and entrance gates create the atmosphere so essential to this class of business. The interior decorative scheme makes an excellent setting for the gowns for which the House is noted. Black marble and silver-bronze have been extensively used inside, and the staircase is of black marble.

The general contractors were Messrs. Somerville & Co., Ltd. Sub-contractors: Steelwork, Messrs. The Somerville-Barnard Construction Co.; Portland stone, Messrs. F. J. Barnes, Ltd.; metal casements, Messrs. W. James & Co.; silver-bronze gates, balustrading and grilles, Messrs. Wm. Morris & Co., Ltd.; black marble, Messrs. Jenkins & Sons, Torquay; decorative plaster work, Messrs. Martyn & Co., Cheltenham; parquet and wood block floors, Messrs. Hollis Bros.; shop fronts, Messrs. F. Sage & Co., Ltd.; fitting rooms and enclosure, Mr. P. Turpin; heating, Messrs. Mumford, Bailey & Preston; electric light, Messrs. Mann, Egerton & Co., Ltd.; furniture and hangings, Messrs. Maple & Co., Ltd. The architects are Messrs. Yates, Cook & Darbyshire, Great Marlborough-street, W.

Colour Competition.

We give this week, in colour, the first premiated design in the competition organised by Messrs. Thos. Parsons & Sons, Ltd., for colour schemes for the decoration of the vestibule of their premises in Oxford-street, by Mr. E. A. Cox. We reviewed the designs last week.

New Premises for the Holt Line, Liverpool.

In this issue we give three illustrations of the design sent in by Messrs. Willink & Dod in the recent competition for Messrs. Alfred Holt & Co.'s office building, Liverpool.

The design placed first, by Mr. Arnold Thorneley, F.R.I.B.A., and Mr. H. J. Rowse, A.R.I.B.A., was given in our issue for October 12.

MEETINGS.

MONDAY, *November* 19.

Royal Institute of British Architects.—Mr. G. Topham Forrest on "The Rebuilding of Ypres." At 1, Wimpole-street, S.W.1. 8 p.m.

Royal Academy.—Professor A. P. Laurie on "Methods of Wall Painting." 4 p.m.

TUESDAY, *November* 20.

Royal Academy.—Professor A. P. Laurie on "The Theory of Colour and its Application to Painting." At Burlington House, W. 4 p.m.

WEDNESDAY, *November* 21.

Reading Society of Architects.—Mr. H. C. Corlette on "The Mediæval Point of View." At University College, Reading. 8 p.m.

Royal Society of Arts.—Mr. J. A. Knowles on "Forgeries in Ancient Stained Glass." At John-street, Adelphi. 8 p.m.

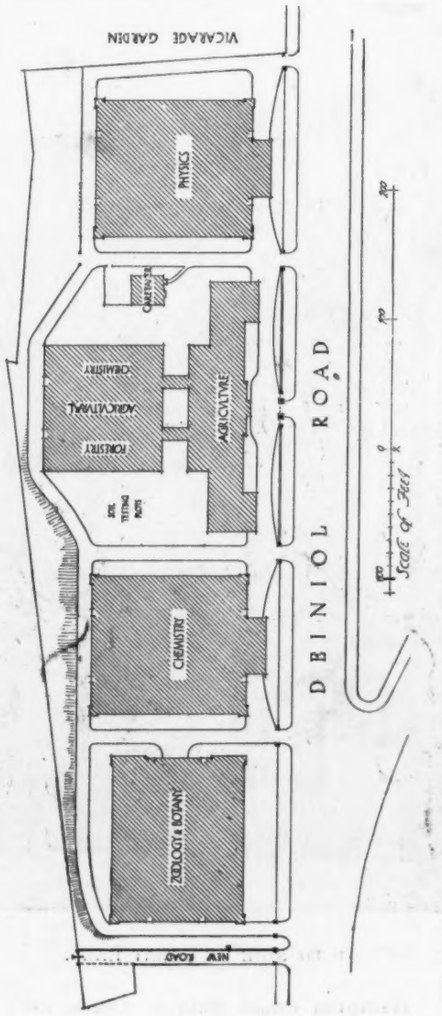
L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Origins and Evolution of the Doric Order." 6 p.m.

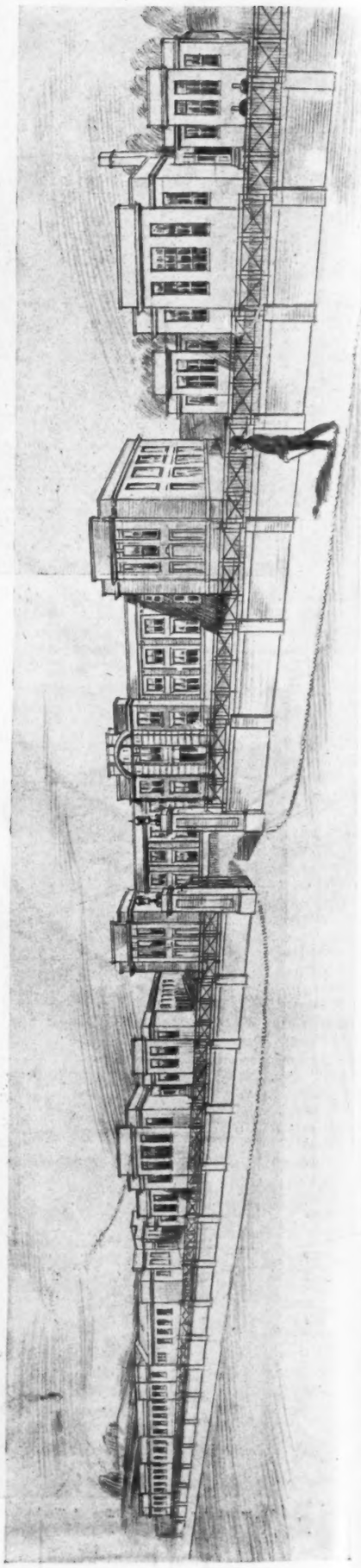
Royal Academy.—Professor A. P. Laurie on "Building Materials made of Waste Materials." At Burlington House, W. 4 p.m.

THURSDAY, *November* 22.

Builders' Benevolent Institution.—Annual Dinner. At Hotel Victoria, W.C. 7 p.m.

Architecture Club.—Quarterly Dinner. At Hotel Cecil, W.C. 7.30 p.m.



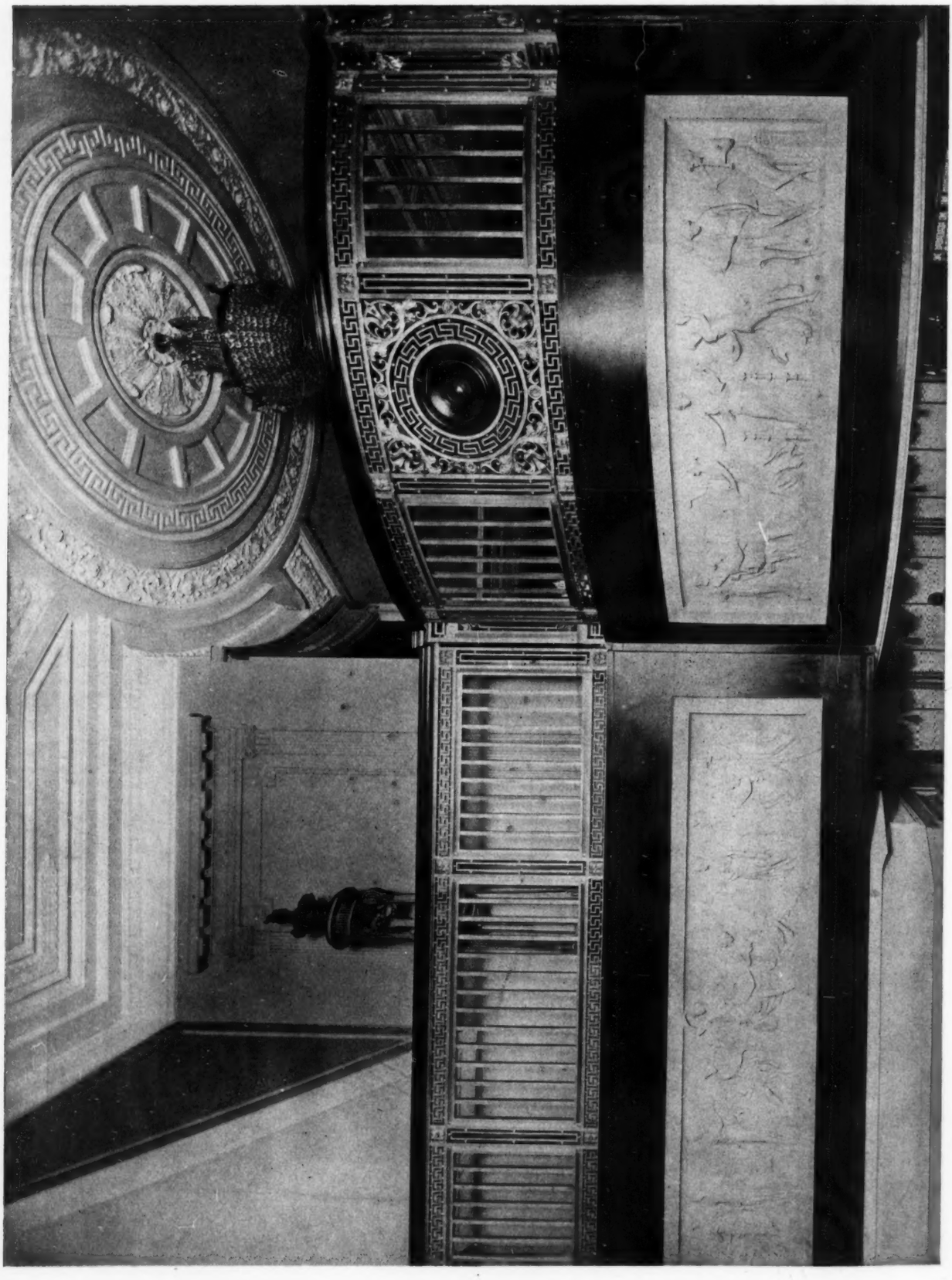


University College of North Wales, Bangor: New Science Buildings—Agriculture and Administration Departments. MR. ALAN E. MUNBY, M.A., F.R.I.B.A., Architect.

No. 223, Regent-street, W.

MESSRS. YATES, COOK & DARBYSHIRE, Architects.

University College of North Wales, Bangor: New Science Buildings—Agriculture and Administration Departments. MR. ALAN E. MUNBY, M.A., F.R.I.B.A., Architect.

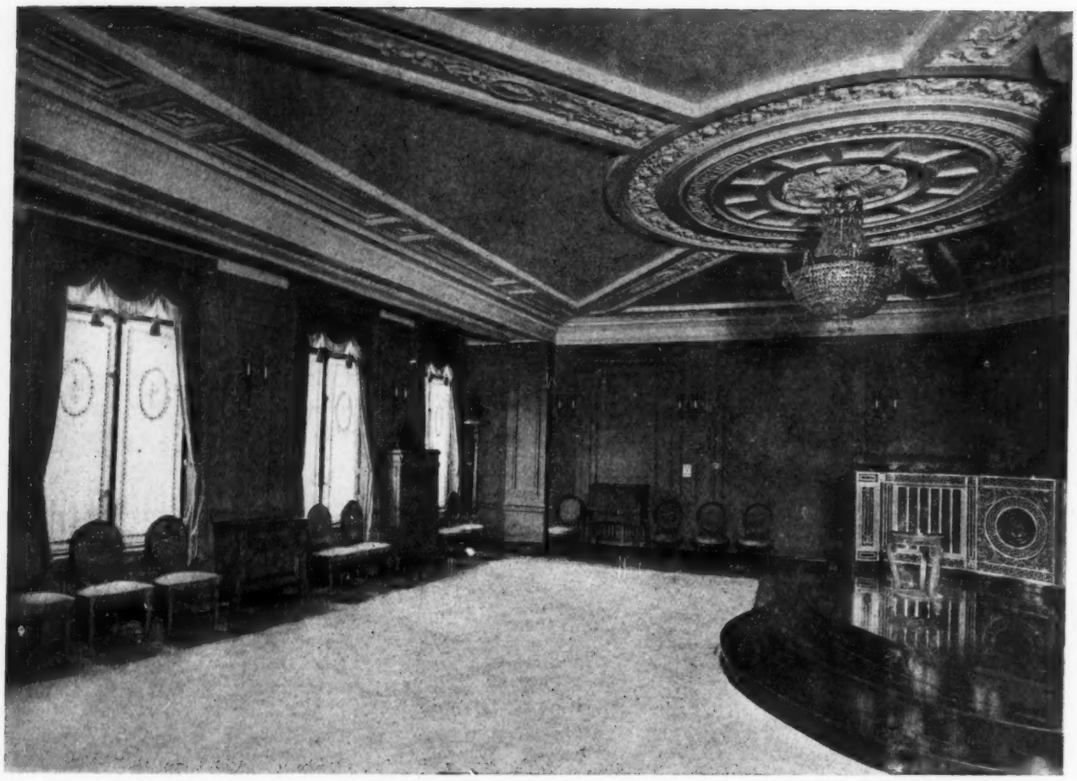


STAIRCASE AT FIRST FLOOR.
No. 223, Regent-street, W.
MESSRS. YATES, COOK & DARBYSHIRE, Architects.

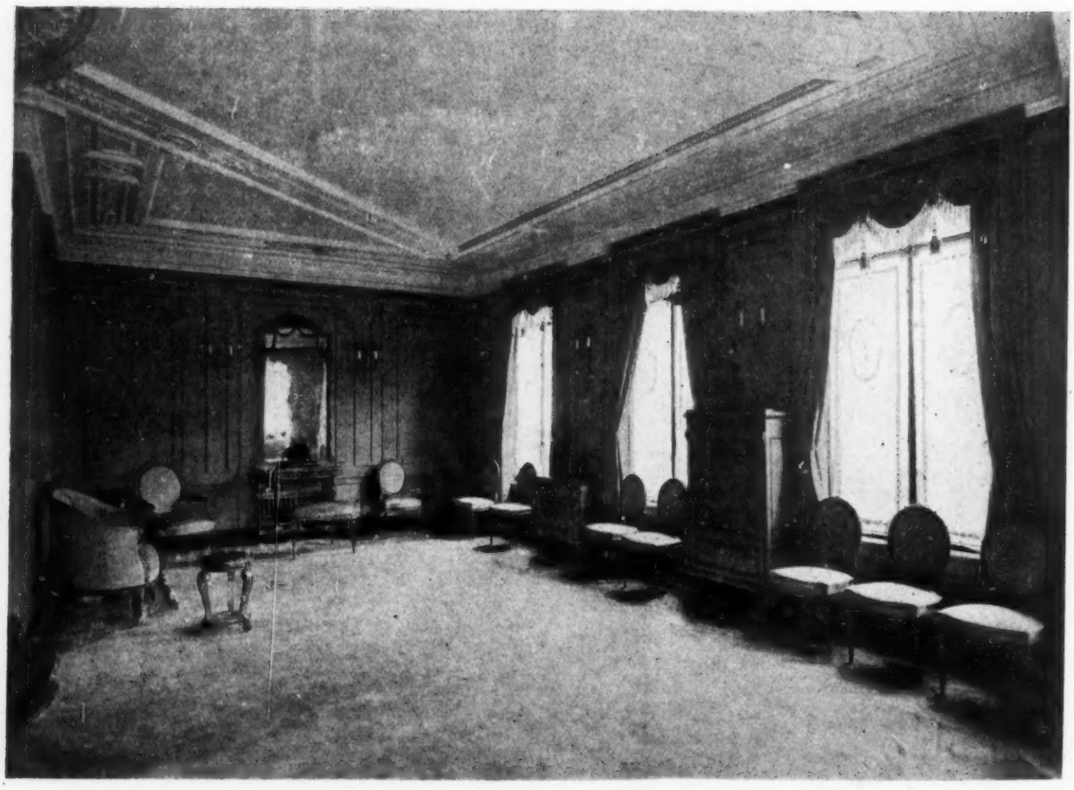
Messrs. Yates, Cook & Darbyshire, Architects.

No. 223, Regent-street, W.: Main Entrance. Messrs. Yates, Cook & Darbyshire, Architects.

No. 223, Regent-street, W.: Main Entrance. MESSRS. YATES, COOK & DARBYSHIRE, Architects.



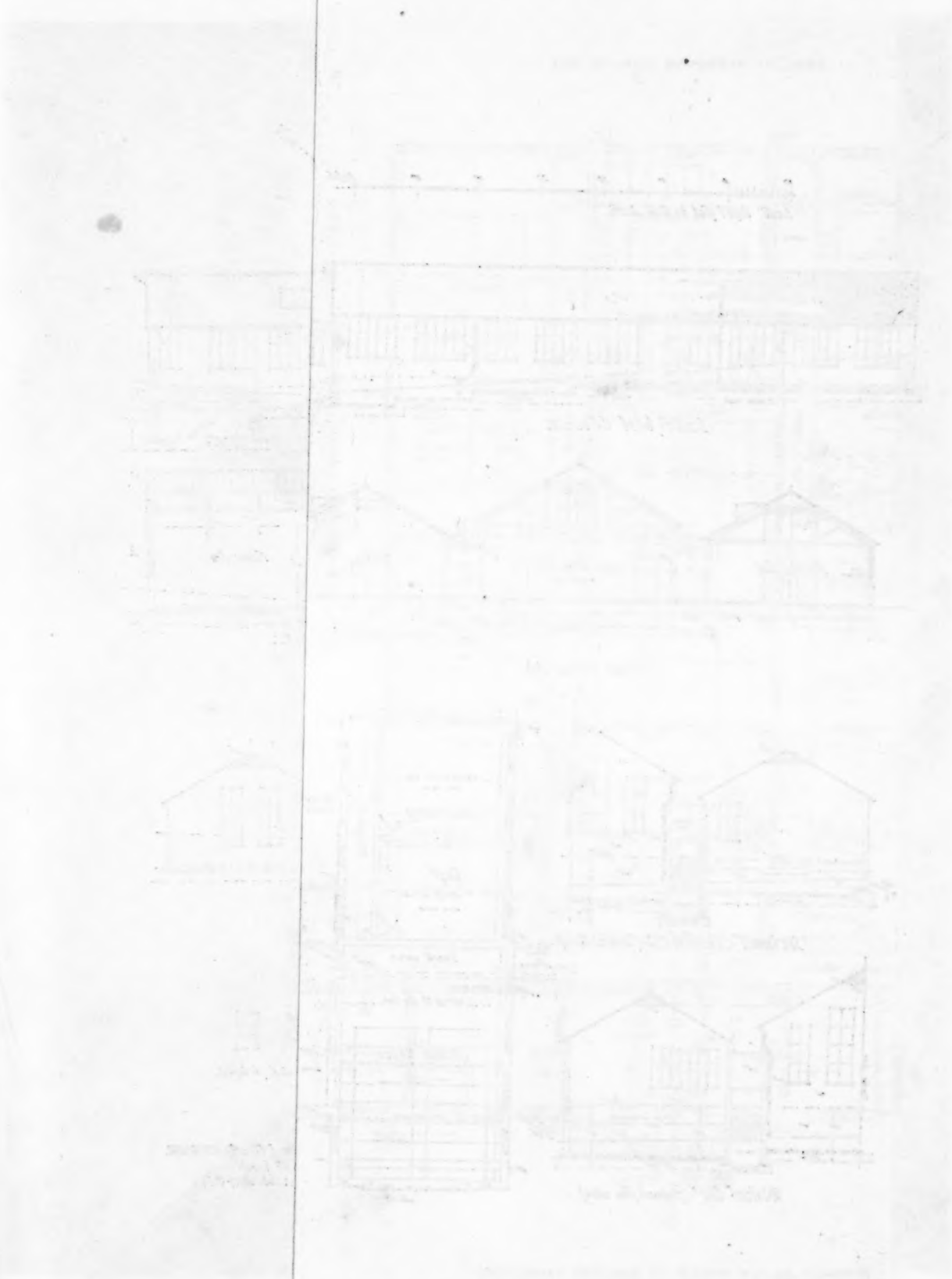
SALON : FIRST FLOOR.

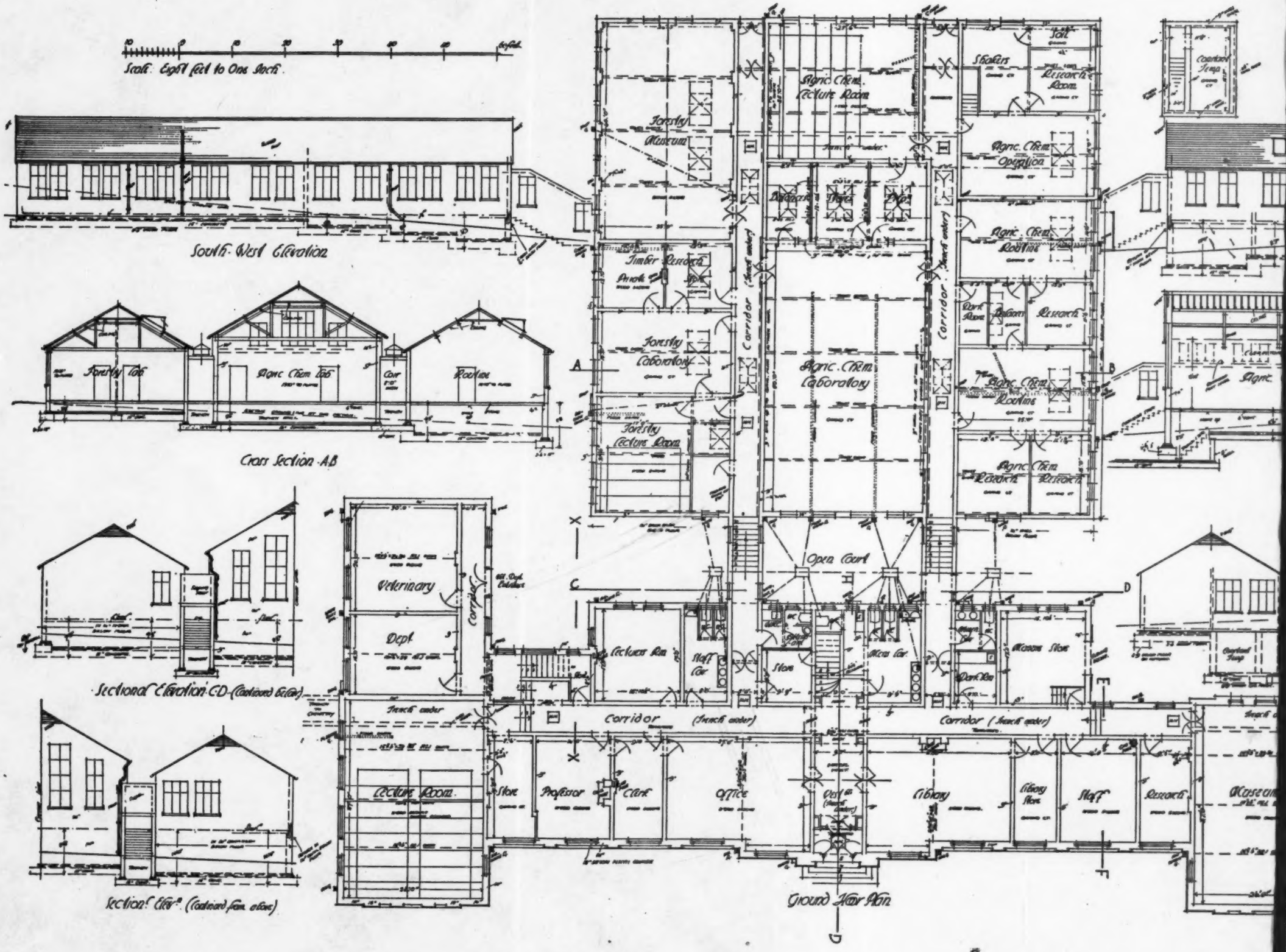


SALON : FIRST FLOOR.

No. 223, Regent-street, W.

MESSRS. YATES, COOK & DARBYSHIRE, Architects.

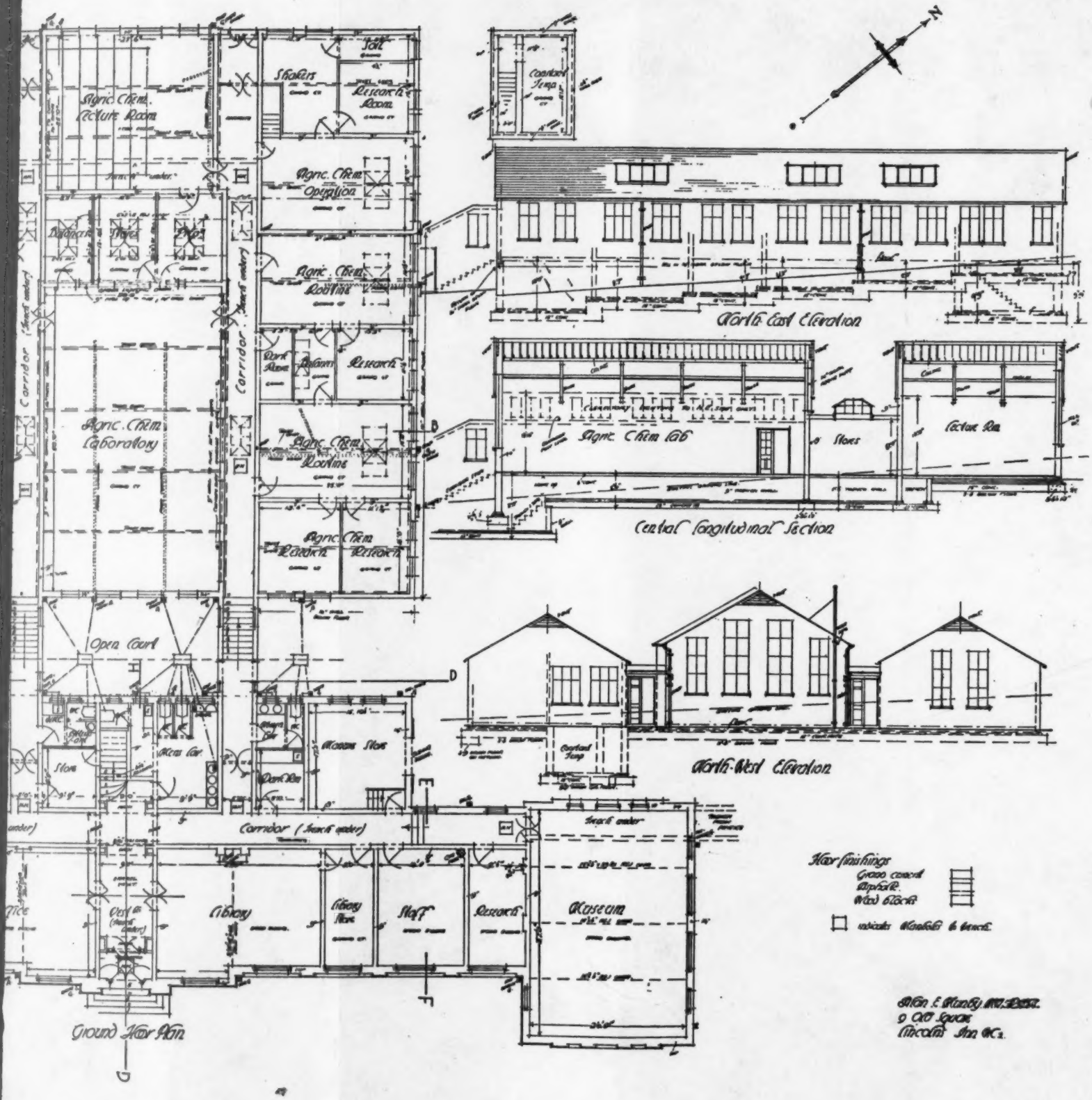




UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.

NEW SCIENCE BUILDINGS—AGRICULTURE AND ADMINISTRATION DEPARTMENTS.

MR. ALAN E. MUNBY, M.A., F.R.I.B.A., ARCHITECT.



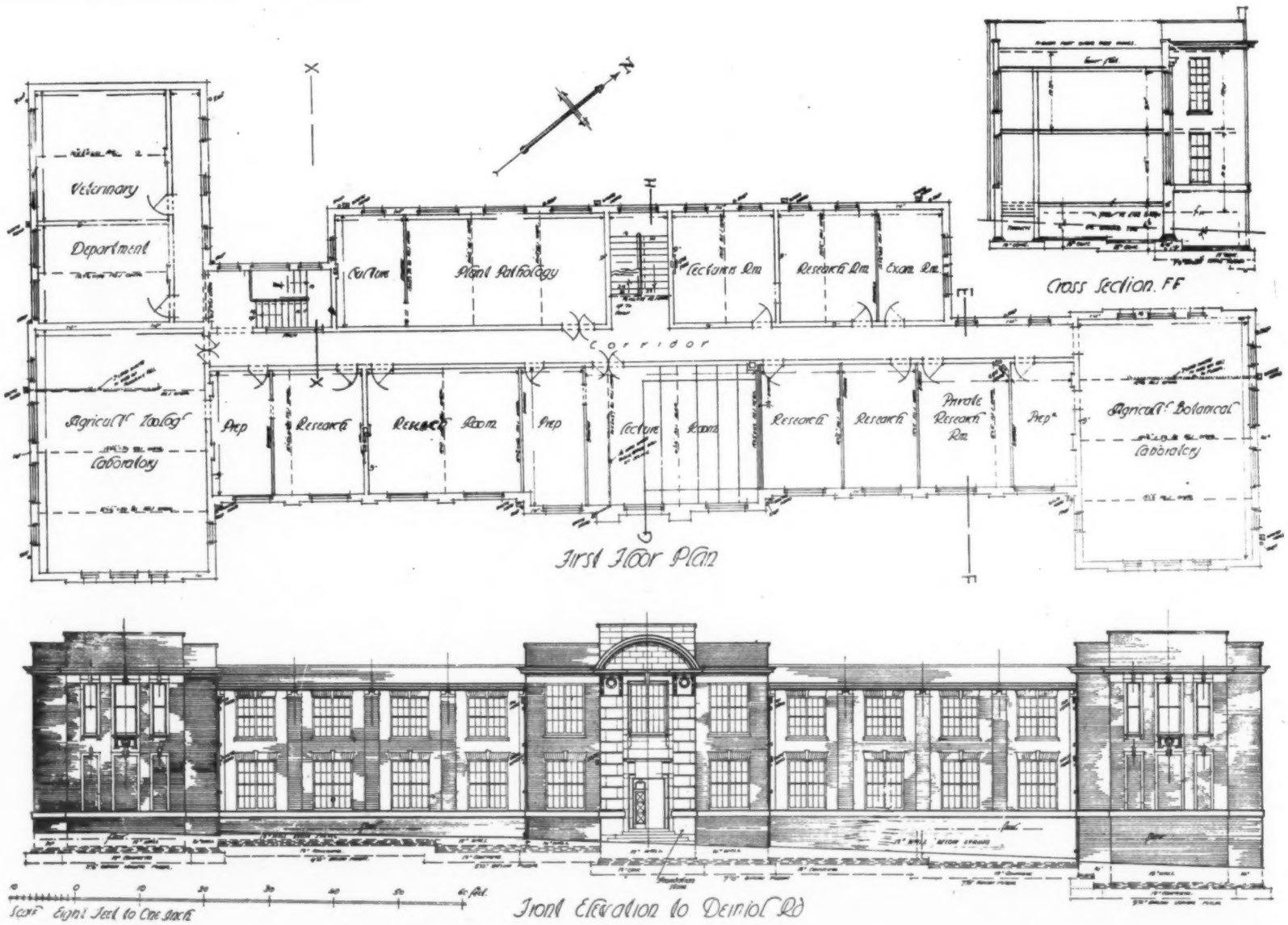
SITY COLLEGE OF NORTH WALES, BANGOR.

NGS—AGRICULTURE AND ADMINISTRATION DEPARTMENTS.

ALAN E. MUNBY, M.A., F.R.I.B.A., ARCHITECT.

No. 223, Regent-street, W.: Marble Staircase.

MESSRS. YATES, COOK & DARBYSHIRE, Architects.

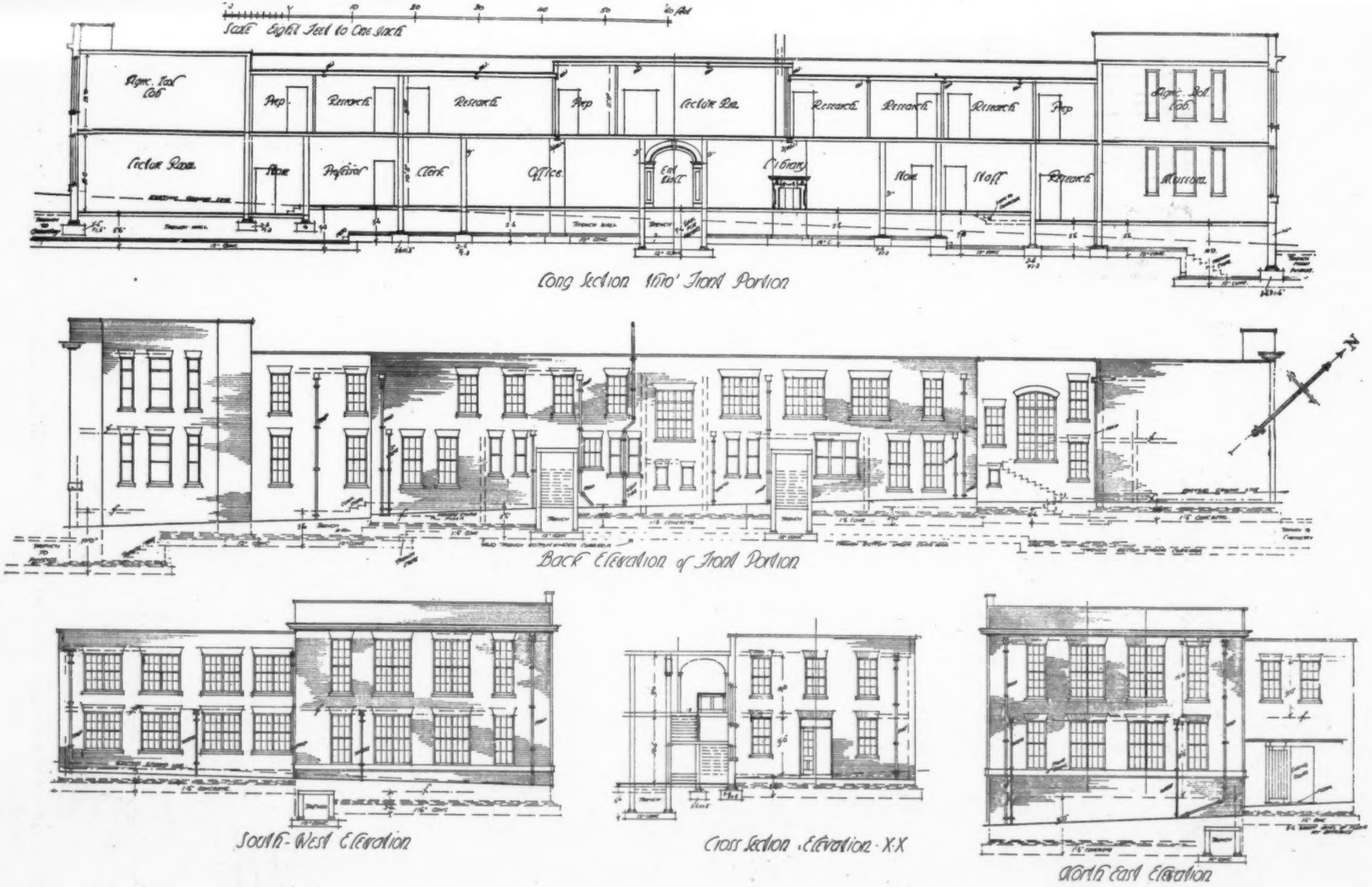


University College of North Wales, Bangor : New Science Buildings—Agriculture and Administration Departments.

MR. ALAN E. MUNBY, M.A., F.R.I.B.A., Architect.

COLOUR SCHEME COMPETITION FOR VESTIBULE OF PREMISES IN OXFORD STREET, W

FIRST PREMIATED DESIGN, BY MR. E. A. COX.



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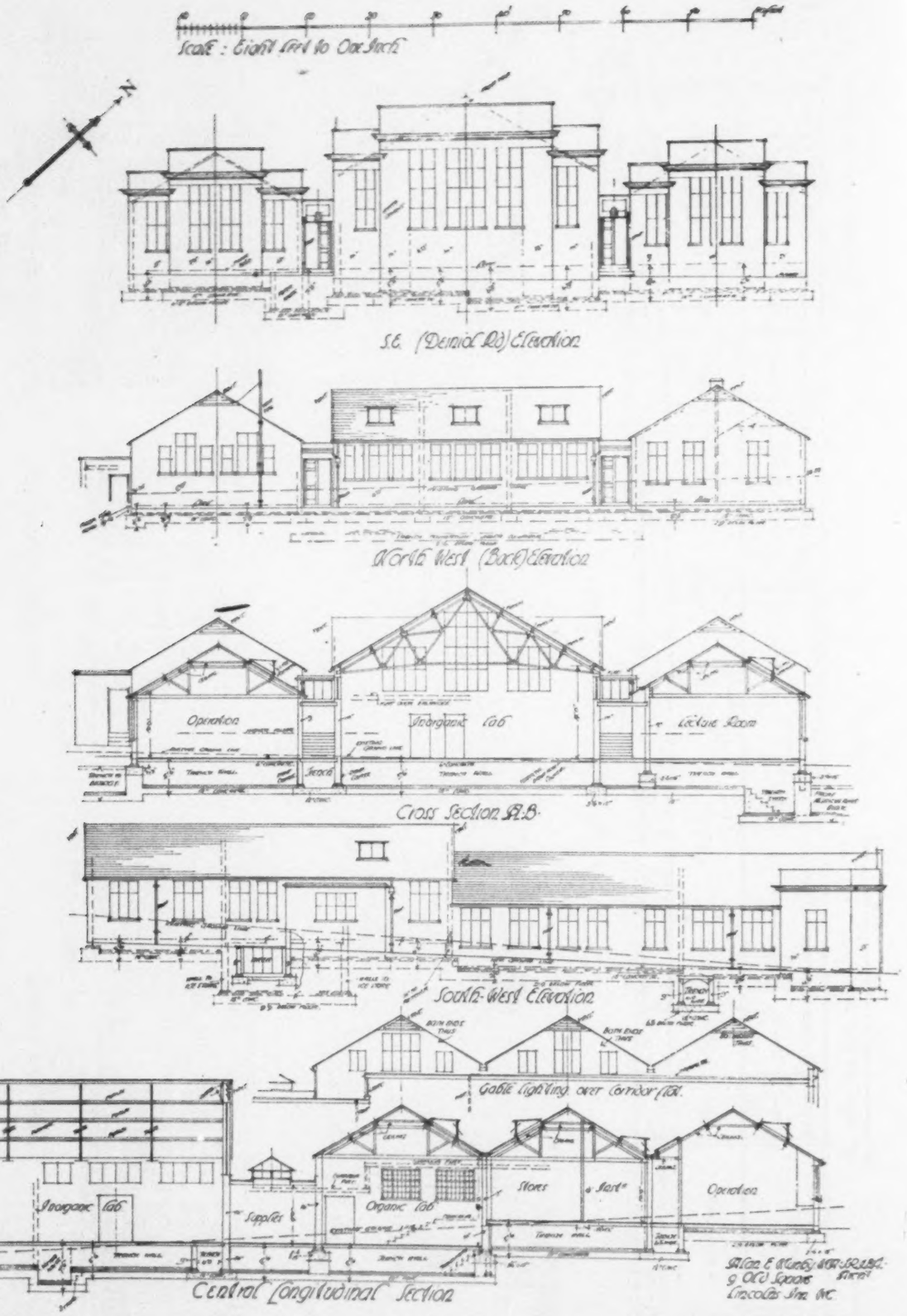

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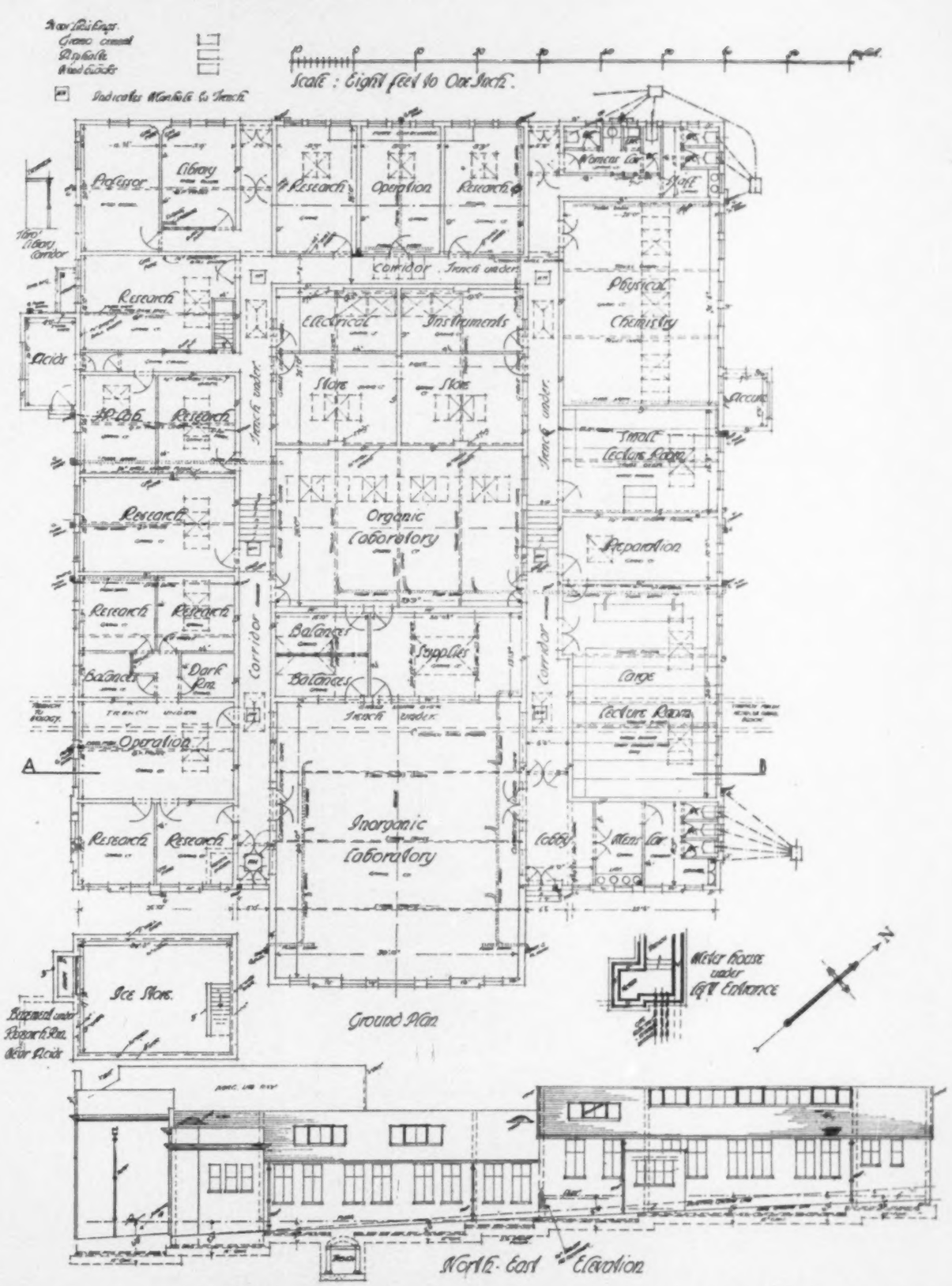

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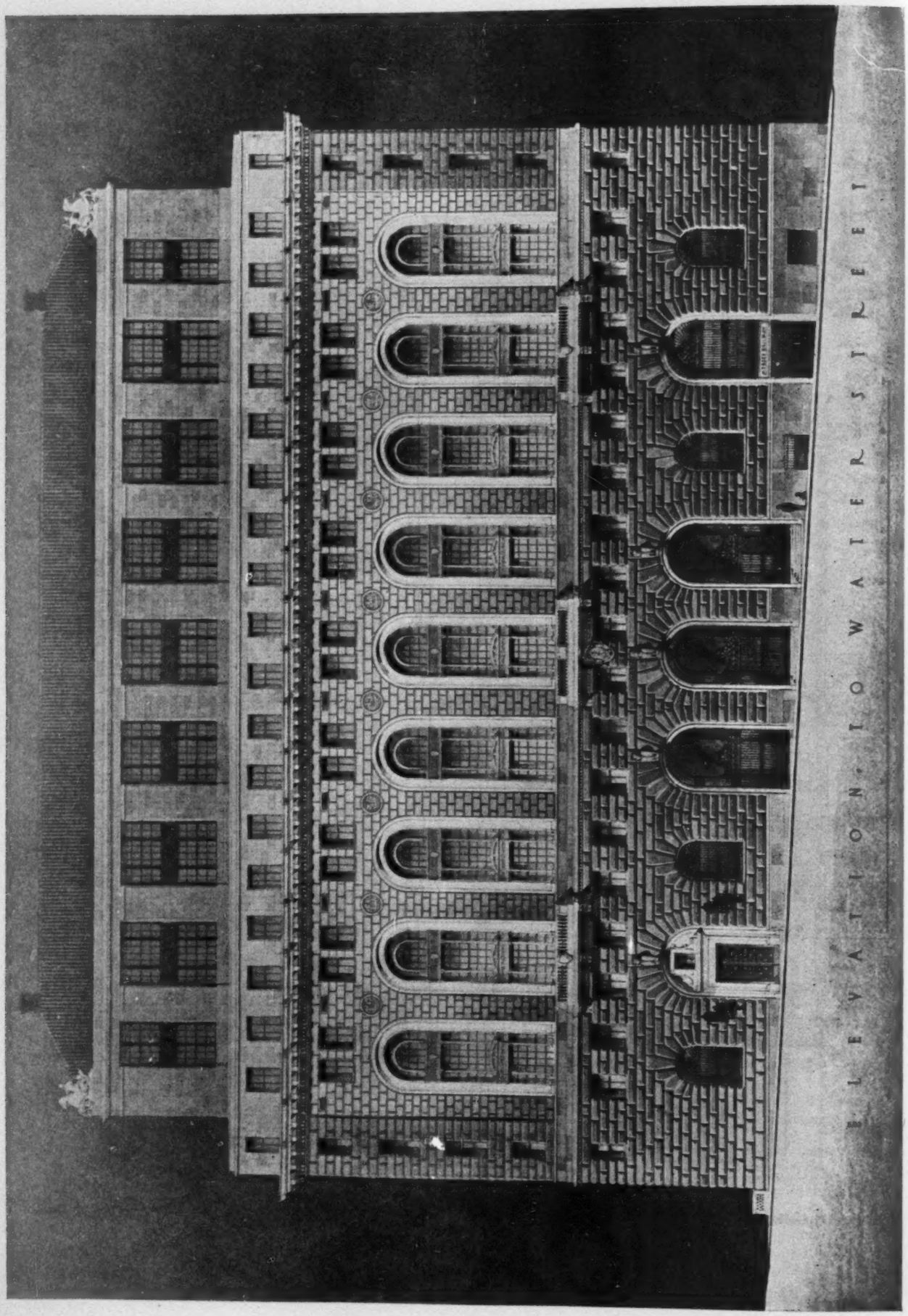
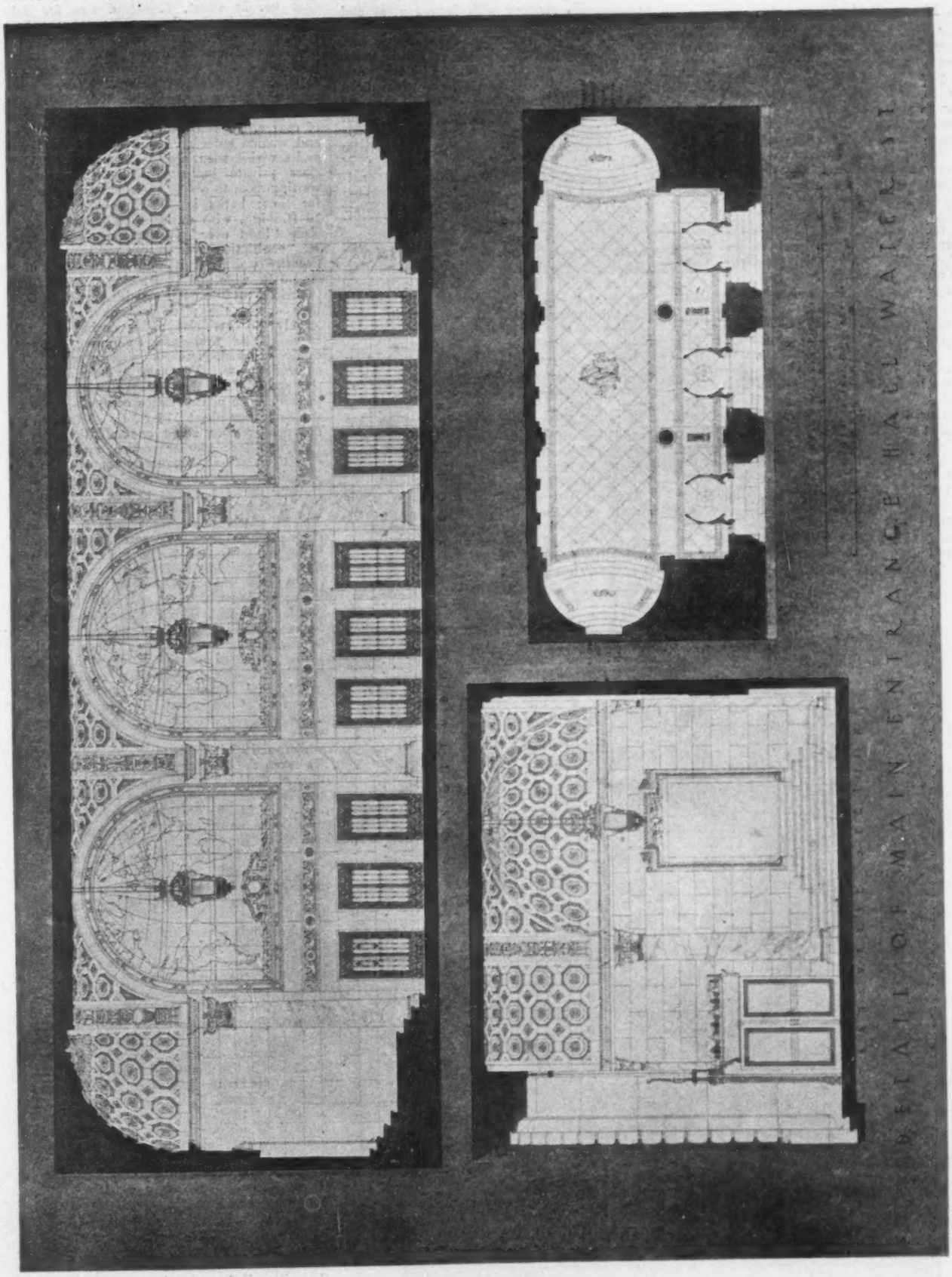


Design Submitted in the Recent Competition for New Premises for the Holt Line, Liverpool. By MESSRS. WILLINK & DOD.



Design Submitted in the Recent Competition for New Premises for the Holt Line, Liverpool. By Messrs. Willink & Dod.

CONCERNING COMPETITIONS.

Mr. Horace B. Appelbee writes:—

Sir,—With regard to the question of single assessor *v.* jury, on which I ventured to express some views in a paper at Birmingham many years ago, there is a point which seems to me to be of great importance and yet in danger of being overlooked. To obtain a satisfactory award it is not a question of numbers, but of qualifications of the judge or jury, and it is largely because all qualifications are not combined in one man that more than one becomes necessary. The difficulty is that we have no agreed standard by which to judge the merits of a building either on paper or in reality, and there are three very distinct points of view. Let us call them "A," "B," "C." All architects come under one or the other.

When there are many competitors there will be some of each class. A single assessor is of only one class. It is inevitable that the designs submitted by those of his class will appeal to him, and the other two will not. For exactly the same reason these two classes will fail to appreciate his award. If instead of a single assessor we have a jury everything depends on its constitution. Three men of the "A" class will arrive at very much the same result as a single assessor of the "A" class. The jury should look at the matter from all points of view, and therefore consist of "A," "B," and "C" men, but could it then agree on a verdict? It is an interesting point.

During the past fifty years probably no architect has had a greater reputation as an artist than Norman Shaw, but we instantly associate his memory with houses great and small and some churches. Like others, he had his limitations; what, for instance, did he know of lunatic asylums or public baths and washhouses? He is typical of class "A." Asylums and public baths have often been the subject of competitions. Usually they are among the ugliest buildings in the land. Their planners are of a very different type from Shaw; they are without his artistic ability, but they possess a knowledge of requirements, of sanitation, of special engineering, of organisation, and of the working relation of one part to another in which Shaw was lacking. These are typical of class "B."

Which is the standpoint from which the merits of these buildings should be judged? The practical and financial side (running cost, not the original building cost) or the æsthetic side, or is there a better way than either? The third type, "C," that I had in mind considers that no project is good which loses a single practical point of importance in an endeavour to produce a fine æsthetic effect, and at the same time does not see why a really practical building should suffer in artistic effect.

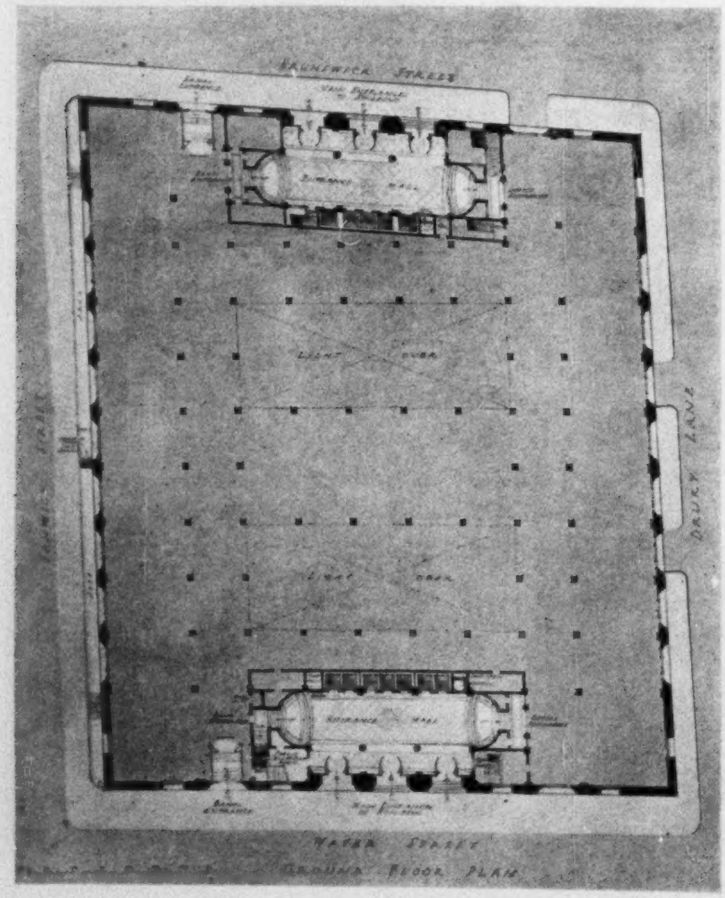
It is difficult to extend this argument as I should like without references to contemporary work, which are undesirable, but I may perhaps be permitted to refer to something which happened twenty years ago.

Chelsea Borough Council desired a public baths, and they stated that they were "anxious to secure a building which shall not only be adapted to their requirements internally, but shall also possess distinct architectural merit externally with as little detail as possible." They appointed Mr. R. Norman Shaw, R.A., "to act for them as their assessor and adviser," with the result that he, in effect, bracketed two for first place—that is, he thought No. 45 the best plan, but since the Committee asked for architectural merit he put No. 21 first as best satisfying that requirement. An unsatisfactory award, of course. A description of these plans appears in *A.A. Notes* for April, 1902. "Mr. Shaw's model plan was, of course, the centre of attraction. . . . Men and women enter on either side of the ticket and superintendent's offices; the men for first-class private baths pass by the women's waiting-room to obtain their tickets. The hall for these baths is 40 ft. square and only 12 ft. high, with daylight on one side only! True 'light over' [perhaps a clerical error for 'ventilation over'] was written near the opposite wall, but it was at the bottom of a well 5 ft. wide and 14 ft. high. As this hall is divided up into cubicles with partitions 6 ft. high or so, the place will have to depend largely on artificial light during daylight hours. The first-class swimming bath is easily reached, and is well arranged for entertainments. We pass a door and enter the second-class department—swimming and private. The private baths occupy a space on the first floor about 112 ft. by 40 ft., with a flat ceiling over about one-half the area, a span roof over another portion, and a lean-to over the rest—all irregularly set out. Is this planning? On the women's side an 8-ft. corridor at right angles to the front leads to the staircase to their second-class baths. No. 1 branch to the right leads to the first-class private baths. To reach the swimming baths you must take the second turning to the right and the first to the left.

"A most important point in bath planning is the dealing with clean and dirty towels and bathing dresses. Usually these are given to a bather on taking his ticket, to be left by him in his dressing box or room; thence they have to be conveyed to the laundry, and, after washing, to the store or ticket office. . . . In our 'best' scheme the basement is full of subways for access to pipes, etc. Shoots are arranged anywhere from the baths to the subways for the dirty linen, for the collection of which artificial light must be mostly used. To reach the laundry, which is on the ground floor at the back of the site, a lift is provided, but it is 60 ft. away from the washhouse. . . . The boilers are placed amidst a regular crop of columns, and it will be a puzzle to get them in or out. The boiler shaft is against the boundary of the site, so that its foundations will underpin the Town Hall buildings. As to the elevation, it can be readily understood that it did not appeal to Mr. Shaw.

"No. 21 is a very artistic and business-like design. The approaches are all direct and well lighted. . . . There are no small light shafts on the first floor, light and air to ground floor being obtained by a small courtyard in the centre of the front near the street, the first floor being carried across the entrance to it on columns. There is a short subway in basement—not daylighted—for towel-shoots, with lift direct to laundry. The elevation is distinctly that of a public building, with good detail, vastly superior to the design selected by the Committee—or Mr. Shaw. It is hard to see where the plan is inferior in practical points, and otherwise they cannot be compared for a moment."

It appears to me that Shaw approved the elevation, general lay-out, and detail (architectural) of No. 21, but failed to appreciate its excellence on practical points with which he was not familiar, and some strange influence was at work to persuade him of the advantages of No. 45, which he left the Committee little option but to accept. If an eminent architect, experienced in baths' work, had been associated with him, the result would probably have been a strong, definite pronouncement in favour of No. 21 on all points.



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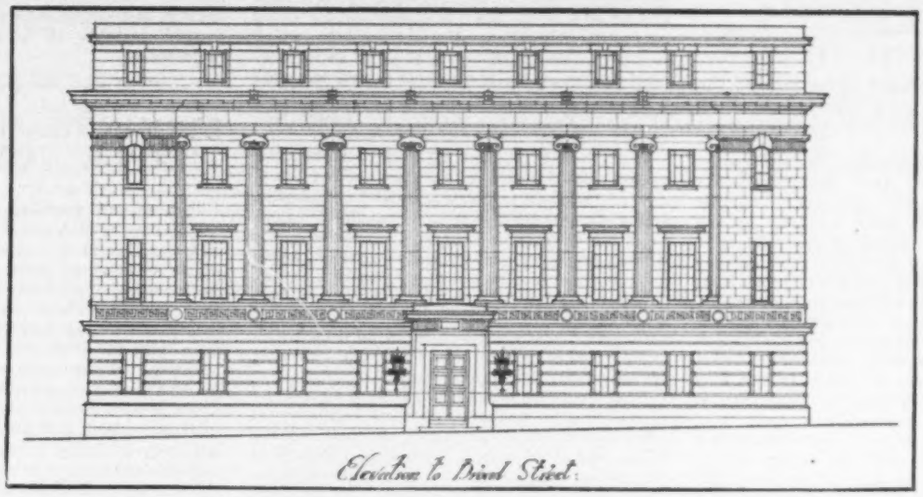
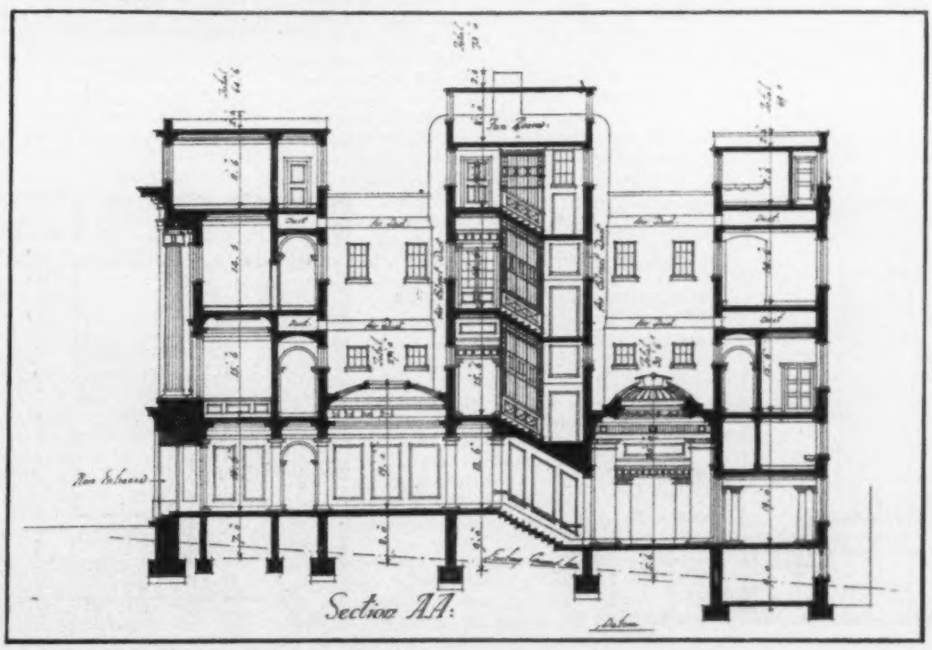




Birmingham Masonic Temple Competition.

Second Premiated Design: By MR. S. N. COOKE, F.R.I.B.A. (*See p.* 772.)

TOWN PLANNING.

III.—MEDIÆVAL CITIES.

FOLLOWING is a summary of the third of the series of lectures on Town Planning given by Mr. Wm. Haywood, F.R.I.B.A., at Birmingham University.

There is a general impression—derived largely from historical novels—that mediæval cities were always romantically irregular; but this impression is far from being correct. In the great town-planning period of the thirteenth century many cities were built, the military and political character of which called for virgin sites, and for wholesale building at short notice. Towns built under these conditions are invariably regular in plan, and the simple chequer-board arrangement—varieties of which are found in all ages and places—is obviously the first thought towards orderly planning when there is occasion to build a complete city.

Many such towns were built in Provence after the Albigensian Wars, with the object of consolidating military success by a policy of peaceful penetration. Many also were built in France, England and Wales by Edward I; examples being Montpazier, Hull, Conway and old Winchelsea. Salisbury had a peaceful origin, and perhaps for that reason achieved some improvement in the monotonous effects resulting from the ordinary gridiron arrangement. In A.D. 1220 the old city on the hill was abandoned for a new city in the plain—two miles to the south—which had been built by Bishop la Poer for the greater convenience of the inhabitants; and the wide streets of this town—each with a central stream of water—were much admired by Leland, who visited the city in the sixteenth century.

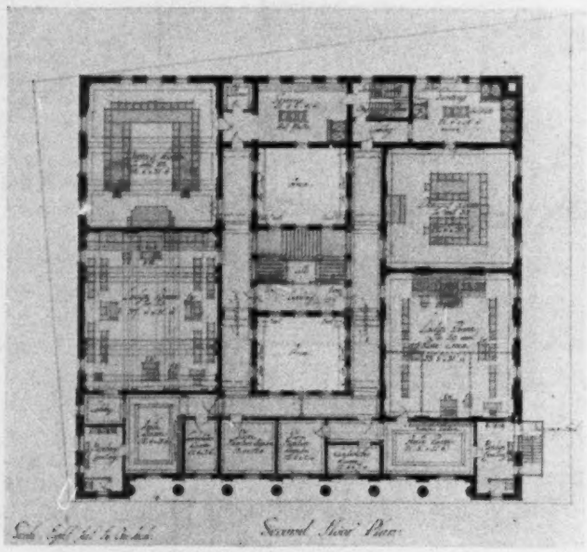
It must not be inferred from the emphasis placed upon formalism in books which treat of ancient town plans, that this quality is desirable, and that irregularity is to be avoided. Both qualities have their use, and in those towns which grow slowly out of local conditions, where irregularities had been found convenient by experience or were compelled by local topography, the mediæval designer built informal settings to enhance the effect of existing buildings, the æsthetic value of which has only recently been fully appreciated.

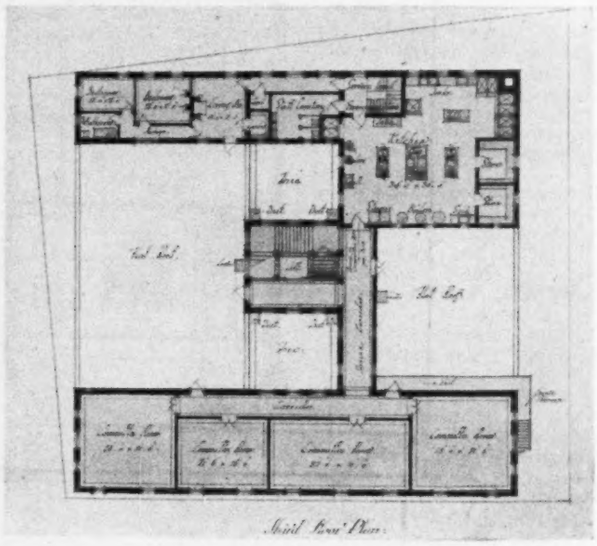
That such settings were carefully designed and not haphazard is shown by what happened at Ulm, where—the Cathedral precincts having been cleared of nearby buildings, which were thought to obstruct the full play of its beauties—they were found to have so enhanced its effect that equivalent buildings were planned at once to re-establish the old conditions. The utility of designed irregularity is best seen in the mediæval arrangement of churches in narrow streets; where the building is recessed from the line of traffic to give roominess for occasional crowds, and at the same time to provide a foreground suitable to a building of size and importance.

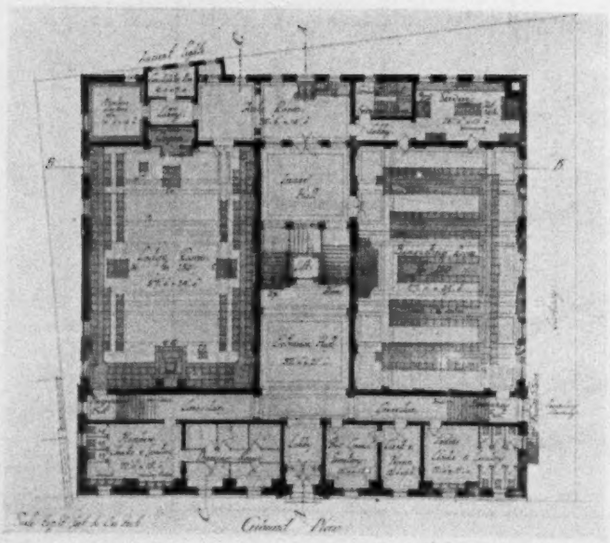
BIRMINGHAM MASONIC TEMPLE COMPETITION.

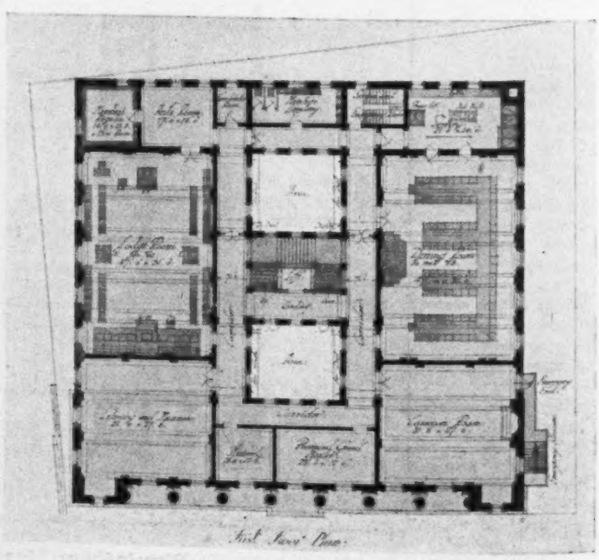
THE second premium in the recent competition for a Masonic Temple in Birmingham was awarded to Mr. S. N. Cooke, F.R.I.B.A., whose design we illustrate this week. The motive of the plan is the disposition of the lodge rooms. These have been planned to ensure the utmost quietness, being kept away from both the front and the back walls of the building. Every lodge room is *en suite* with its own dining room, and every dining room has a service room connected with lifts to the kitchens, which are placed at the top of the building, it being considered that basement kitchens are always a nuisance. The levels of the site have also been utilised, the large lodge room and dining room being approached from the lower level.

The first premiated design, by Mr. Rupert Savage, F.R.I.B.A., was given in our issue of September 28.









Birmingham Masonic Temple Competition.
Second Premiated Design: By MR. S. N. COOKE, F.R.I.B.A.

READING SOCIETY OF ARCHITECTS.

"The Roman Point of View."

THE second of a course of four lectures on architecture, arranged by the Reading Society of Architects in conjunction with the Reading branch of the Workers' Educational Association, was given in the large hall at University College, Reading, on Wednesday last week, when the chair was taken by Mr. Edward P. Warren, F.S.A., F.R.I.B.A., the President of the Berks, Bucks, and Oxon Architectural Association. Some 400 persons were present. The lecture, which was on "The Roman Point of View," was illustrated by numerous lantern slides.

The lecturer, Mr. Paul Waterhouse, opened his discourse by disclaiming any intention of proving that the Roman people would have acknowledged a point of view at all. Probably, since the best art was spontaneous, they had no consciousness of a policy in architecture as a nation. National views on architecture were, he said, very different affairs from the traditions and secrets within the craft itself.

Setting aside as erroneous the notion that the Romans were mere blind copiers of the Greeks and artless appropriators of the achievements of other and earlier nations, he proceeded by the aid of slides to develop his opinions on the trend of architectural cause and effect in the greater periods of Roman supremacy. The conditions and problems of Rome had, he said, a quite extraordinary parallel in the circumstances of modern England. There was hardly a problem of our own, however baffling, to which we could not apply the test "What would Rome have done," and very few to which Rome did not supply either an answer or a suggestion.

The Roman position, as regard anterior architecture wherever found, was not that it was "foreign stuff to be borrowed," but that, Rome being mistress of European civilisation, it was Rome's. Further, the employment of anterior forms, developed or undeveloped, was not pillage but merely the carrying out of that process of leaning on the past, which was the only acceptable method of architecture in any of the great periods.

ROME SCHOLARSHIP IN ARCHITECTURE, 1924.

THE Faculty of Architecture of the British School at Rome has granted permission to the following to take part in the preliminary competition for the Rome Scholarship and Henry Jarvis Studentship in Architecture of 1924.

Mr. C. T. Bloodworth (University of Liverpool).
Mr. D. L. Bridgwater (University of Liverpool).
Mr. R. W. Briggs (University of Manchester).
Mr. D. Brooke.
Mr. L. Durnin (University of Aberdeen).
Mr. W. B. Edwards, B.Arch. (Liverpool).
Miss A. M. Hargroves.
Mr. L. C. Howitt (University of Liverpool).
Mr. J. H. L. Owen (University of Liverpool).
Miss E. Rogers, B.A. (Manchester).
Miss F. T. Silcock (University of Liverpool).
Mr. H. S. Silcock (University of Liverpool).
Mr. M. A. Sisson (University of London).
Mr. A. M. Stewart (University of Aberdeen).
Mr. H. Thearle (University of Liverpool).
Mr. F. E. Towndrow, A.R.I.B.A.
Mr. F. X. Velarde (University of Liverpool).

Books Received.

ISLAMIC ARCHITECTURE. By Sattar Kheiri. (London: John Tiranti & Co.) Price 2s. 6d.

HOW TO APPROACH THE ARCHITECT. By William Regan. (London: The Architectural Press.) Price 2s. 6d.

PROPERTY OWNERS' GUIDE. By Edwin Evans and B. G. Evans. (London: Property Owners' Protection Association, Ltd.) Price 5s.

D.I.C. HOUSE COMPETITION.

THE site purchased by the D.I.C. House (Cross-street), Ltd., on which it is proposed to erect a building to be known as "D.I.C. House," is situate next to the south-western corner of the Exchange with its front facing Cross-street and its back Half Moon-street, Manchester. The superficial area of the site is about 447 sq. yds. When the new building is erected the front will not extend into Cross-street as far as the present frontage, but will continue the building line of the Royal Exchange, thus relieving a busy corner of much of its traffic pressure. In order to ensure having a new building which, whilst utilising the available space to the best advantage, will be a credit to the city architecturally, the Directors of the Company invited a number of architects to submit plans for the building. Professor C. H. Reilly, O.B.E., M.A., F.R.I.B.A., acted as assessor

The following are extracts from the conditions of the competition:—

"The promoters desire to obtain a building of the greatest possible dignity consistent with the requirements. For this purpose they suggest that the building should be designed both externally and internally in as broad and simple a manner as possible. The building must be constructed of fire-resisting materials throughout, inclusive of floors, roofs and staircases. The drawings must be accompanied by a concise typewritten description of the building, its construction, finish and materials proposed to be used, and giving such information as cannot clearly be shown on the drawings. An estimate of the cost must be attached to the statement based on the total cubic contents of the building including foundations, roof and chimneys. These cubic contents must be given. The total estimate should include for decoration, heating, ventilation, electric light and power, gas, lifts, and all permanent fixtures. A schedule of lettable floor space should be added. Any design adjudged by the assessor to be likely to materially exceed the sum of £42,000 on the building and fittings, as described in the above condition, will be disqualified. The building is to occupy the inner area up to the improved frontage line, the splayed corner being carried up to the full height of the building. The drawings required are:—(1) Plans of the ground floor, the top floor and a typical floor showing how they may be divided for letting purposes, one section and the elevations to Half Moon-street and the Public Passage all to the scale of $\frac{1}{8}$ in. to 1 ft. (2) Elevation to Cross-street to the scale of $\frac{1}{4}$ in. to 1 ft. (3) A perspective view from the opposite side of Cross-street showing the Cross-street front and the splayed corner to the Public Passage on a sheet of paper not greater than Imperial size. All drawings to be rendered in monochrome and mounted on cards.

"*Accommodation Required.*—The building is to be first for ordinary office purposes. The ground floor should be designed for shops with separate entrances for the offices above. The office story immediately above the shops and the basement below should be designed to be let with the shops. Below this basement may be another over a portion of the site for the heating apparatus. The building should be designed for a ground floor story of 15 ft. floor to floor and seven stories of 11 ft. each, making a height of 92 ft. in all. It may be assumed for the purposes of the competition that the promoters have come to arrangements with adjacent owners on questions of light and air. A small flat for the caretaker should be provided as part of the top story."

Thirteen sets of drawings were submitted, and the assessor selected those sent in by Messrs. J. G. Prestwich & Sons, of Manchester and Leigh (illustrated in our last issue), and highly commended the plans by Mr. H. S. Fairhurst, of Manchester, and those jointly designed by Mr. G. H. Willoughby, of Manchester and Blackpool, and Messrs. Rees & Holt, of Liverpool.

When the new building is finished it will be seen as a very simple version of an Italian Renaissance palace design; a straightforward building of Portland stone with plain granite piers on the ground floor. This is literally in accordance with the condition of entry to the competition mentioned above. The whole of the thirteen sets of plans submitted will shortly be exhibited at the Manchester Art Gallery, together with the designs submitted for the Masonic Temple to be built in Bridge-street, Manchester.

It is expected that demolition of the present building will commence shortly, and it is hoped that the new building will be commenced in the early part of the new year.

Professor Reilly, in making his report to Mr. Arnold Williams, the Chairman of the D.I.C. House (Cross-street), Ltd., added the following:—"Finally, I congratulate you on the excellent result of your public-spirited action in holding this competition through which you have obtained a very workmanlike and satisfactory design."

THE OLDEST THRONE IN EUROPE.

IN a lecture on Wednesday last week at the Central School of Arts and Crafts, dealing with the early period of Greek architecture and its remains, Sir Banister Fletcher described the primitive walls of the oldest cities of Greece, called "Cyclopean," from the gigantic blocks of which they are composed. This early work contrasts strangely with the refined and delicate work of the temples erected centuries after, evolved from it by the constructive and artistic spirit of the Greeks. The lecturer described the citadel of "wall-girt" Tiryns, looking out over the sea; the celebrated "Gate of Lions" at Mycenæ, another stronghold, looking over the Argive plain; and the walls of legendary Troy, on the great trade route between East and West.

The remains recently discovered in Crete formed his principal theme. Egypt, Babylonia, and Greece have in turn told us their story of ancient civilisations; but Crete kept her secret until Sir Arthur Evans revealed the site of Minoan civilisation and the birthplace of European architecture by his excavations at Knossos—a story which the lecturer told anew, by the valuable aid of graphic lantern views. The legends of the Minotaur and the labyrinth have been surprisingly objectified in these discoveries, and the plan of the palace is labyrinthine indeed. Views were shown of the throne room, with its world-famous stone chair of the great King Minos—"the oldest throne in Europe," said the lecturer—which still stands there to-day as it stood some 4,000 years before our era. Its appearance may be appreciated from the model in the basement of the British Museum. The theatre and Hall of Double Axes, so called from the mysterious emblems inscribed on the piers, were also described, as were the long corridors of tall and graceful oil-jars, the magazines, the staircases, and other features. The palace was equipped with all the equipments of the time, and some seem startlingly modern, such as the socketed drain and water pipes, baths, and corn chests. A grand staircase leads to the queen's suite, designed for comfort, air, and sanitation. There are no traces of fortification on the island, and we know that the strength of Crete, as of Britain, was in her Navy.

The succeeding lectures will deal with the developed or "Hellenic" period of architecture, the Golden Age of Greece, and a study of the conditions of civilisation which helped to mould it, the chief centres where these great buildings were erected, and the characteristics, structural and decorative, of Greek architecture in general.

THE TOWN-PLANNING INSTITUTE.

Presidential Address.

THE opening meeting of the Town-Planning Institute was held on Friday last week at 92, Victoria-street, when MR. T. H. MAWSON delivered his presidential address.

MR. MAWSON first recalled the town-planning conference called by the Royal Institute of British Architects in 1910, and the pronouncement of Professor Beresford Pite that the problems of town planning were architectural and would be ultimately judged as such. In founding their University Schools of Town Planning and in the Constitution of the Institute they had recognised the necessity of bringing to every town-planning scheme the best brains of the country to solve its legal, financial, constructional, and æsthetic problems, and all these contributors were bound together in mutual enterprise and helpfulness within their constitution. Thus they had had as presidents men famous in the realms of municipal law, economics, surveying, engineering, and architecture, and they had now recognised that landscape architecture had its place and use in the evolution of the city towards its finest expression as a place not for toil only, but for the development of that fuller citizenship which demanded opportunities for recreation and cultured leisure for all its sons and daughters. This age, which was struggling after the conscious expression of civility and elegance, could not any longer afford to regard the landscape architect as a mere contributor to the ease and luxuries of the rich. They must recognise that his first moral obligation was to the masses of their fellows who needed that "refreshment of body and spirits" which contact with Nature always engendered, and for the young healthy exercise, with leisured ease for their elders. The expert engineer might join forces with the expert horticulturalist, but this combination would not give the desired results, for the art which he would endeavour to define for them was not primarily engineering, and it was not horticulture. They must have the trained designer with the soul of an artist, expert in constructional details and possessing at the same time an intimate knowledge of those materials, particularly of all growing things, by which he clothed and expressed his ideals.

For reasons which baffled his understanding they had never thought it essential to train up such a body of experts capable of giving expression to these idealistic principles, and he was getting very anxious for the future. Compare for one moment their country with America, where at least two hundred and fifty students were under training in seventeen universities, seven of which provided four-year courses to post-graduates. The only approach to academic recognition of the art of landscape architecture in this country was the course of six lectures which he gave each year to the students in civic design at the Liverpool University. He was convinced that the price they would eventually pay for this terrible neglect of a noble art would be the loss of the prestige which a mere handful of strenuous enthusiasts had sought to maintain.

Having urged the recognition and study of landscape architecture as a contributing factor in the development of the ideal city, they might reasonably ask him for a definition of the art and the sphere within which it might be exercised. This was all the more necessary in view of the fact that what he had so far urged might apply solely to the design of the park and garden units which were located by some other hand. Personally he could not, and never had, accepted any such limitations of its functions.

"Landscape architecture is primarily a fine art, and as such its most important function is to create beauty in the surroundings of human habitations and in the broader natural scenery of the country; but it is also concerned with promoting the comfort, convenience, and health of urban populations, which have scanty access to natural scenery, and urgently need to have their hurrying workaday lives refreshed and calmed by the beautiful and reposeful sights and sounds which Nature, aided by the landscape art, can abundantly provide."

This was the best definition of landscape art he knew. It was from a letter of Professor Charles W. Eliot to the editors of *Landscape Architecture* in October, 1910. It would bear sincere and earnest analysis. It might be thought at first sight that the definition did not give sufficient place to what they called unspoiled natural scenery, but this was the note which ran through it all like the red strand in the ropes of the British Navy. In its more restricted application he had elsewhere described the functions of the art as topographical architecture or as "the art which attempts to secure the agreeable relationship of parts to the whole." This was its main differentiation from architecture as ordinarily understood, which concerned itself mainly with the design of the unit. This did not, however, complete a definition for landscape architecture: it was also the art which sought to harmonise art and nature, and in Bagshot's phraseology "to determine which shall be conductor and which first fiddle." It was also the art which sought to design and adjust the amenities of a town to the needs of its population and to realise the æsthetic possibilities of the site in consonance with physical conditions and residential needs. If they urged that he was merely confusing issues and applying labels, and calling city planning landscape architecture, he would add that finally it was the art which sought to understand and interpret Nature, and to apply its lessons under varying conditions of site and climate.

To accept this broader definition did not lessen their dependence on the sister arts or contributing sciences in the evolution of their town plan, but it did suggest a new attitude of mind towards creative beauty, and especially the beauty of Nature as a definite moral making for civic betterment.

If they accepted the foregoing, the first question which arose was what was the scope within which the art might legitimately and practically be exercised, and under what conditions, applying Bagshot's simile again, might the landscape architect be conductor and the rest be members of the orchestra? He wished to be frankly fair, and to admit the possibility that all town-planning problems might not "ultimately be judged problems of landscape architecture." They might, for instance, eliminate from his particular sphere of operation the scientific development of a factory area or the planning and construction of great docks, the planning of railway goods-yards and abattoirs, but he might reasonably add that it would be difficult to plan a really beautiful civic centre without some reference to this art.

For the purpose of their inquiry they might divide towns and cities under six headings: (1) Manufacturing cities like Bolton; (2) commercial and distributing cities like Manchester and Liverpool; (3) pleasure cities like Blackpool and Scarborough; (4) University cities and cathedral cities like Oxford and Cambridge, Canterbury and York; (5) Governmental centres such as Washington; (6) composite cities like Salonika in Macedonia and Regina in Western Canada. Five of these six types had each a dominating *motif* for its existence, requiring the controlling influence of specialised professions, but all in due proportion needing the skill of the landscape architect. The manufacturing city in the ample provision and proper location of its recreational facilities for adults and playgrounds for its children. The commercial city in the provision of its parks and recreational facilities, and also in the provision of those stately town squares and radiating boulevards and open spaces, which always seemed to be the natural way of expressing commercial opulence. The University city required the planning and arrangement of the colleges in relation to each other, and the provision of quiet courts suggesting intellectual oases, along with those ample playing fields in which so much of the character of young England was developed. Also there was the provision of those beautiful botanic gardens, so delightful in Oxford and Cambridge, where love of beauty is so greatly promoted. In the cathedral city where did the landscape architect come in? If they compared the ample, restful, unbroken grass lawns which formed such a splendid setting to Salisbury Cathedral with the ragged surroundings of, say, Ely, they would even here see the opportunities for the landscape architect. The capital city called most of all for a dignified use of Nature's beautifying touch; here round the great Parliament and departmental buildings they had to create the greatest of all centres, the national centre which should epitomise all the attainments and hopes of the nation. In the lay-out of the pleasure city it might with some force be stated that the dominant problems were those of landscape architecture. Here beauty was utility, and ugliness intolerable. Such a city often lived by the preservation of its natural amenities. Cut down the pine woods of Bournemouth and develop Boscombe Chine as a shopping centre, and they would at once produce bankruptcy; take Lord-street out of Southport and what had they left? Or take away Princes-street-gardens in Edinburgh, and what became of Princes-street? Destroy the boulevards of Paris, and it would in a large measure lose the quality which attracted so much of its wealth. He thought they would concede at once that the plan of a pleasure city should be dominated by its promenades, its groves and gardens, its parks and recreation grounds, woven together into a coherent park system, and that the traffic circulation in such a city should be made to contribute to the all-pervading note of a city adorned by Art and Nature. Everything should be subservient to one controlling factor, namely, the commercial value of sylvan beauty.

As examples illustrating the influence of the landscape architect Mr. Mawson proceeded to deal with Salonika and Regina, and advised also a visit to the cities of Minneapolis and St. Paul as evidence of the achievement of landscape architecture in the provision of a park system.

Discussion.

PROFESSOR BERESFORD PITE, in moving a vote of thanks to the President, said this subject of the combination of the beauties of Nature with the necessities of civic life was practically a modern subject. The civil conditions under which they lived in their way were as ancient as they could be although they were constantly changing and taking new forms, but the problem to which Mr. Mawson had addressed himself was a combination of art and natural beauty with the requirements of purposeful utility, and it was this combination which was so important but was so difficult. Fundamentally the financial problem had a great deal to answer for in the brutal ugliness of their bigger cities. The President had been fortunate in the cities he had had to deal with instead of such a problem as that of Manchester, where trees would not grow. He trusted that cities without natural amenities would be inspired to consider their own problems, which he felt a little architectural instinct and a great deal of architectural consideration might solve. They would do no good if they pursued the subject from the point of view of artistic ideals only, for they would find themselves complicated by practical difficulties. The

essential modern standpoint was directly opposed to the idealistic view of things, and they had to keep themselves in sympathy with the civic difficulties of these huge manufacturing cities. He suggested with regard to Manchester, which had a large number of high chimneys, that had they been set out geometrically those chimneys might have had an æsthetic value without interference with their usefulness. The great smoke stacks of the Chelsea Electricity Works had an æsthetic value simply because they were geometrically arranged. In the same way the great spoil banks which defiled the Midlands and the North might, if treated geometrically, give a suggestion of the Pyramids. He suggested, therefore, that there were possibilities in the geographical treatment of factories and landscapes in districts where trees would not grow by which they could get something like architectural effects from the unpleasing evidence of commercial activity. The interest in the subject was modern, for it was doubtful if the Greeks really enjoyed a garden. The situation of ancient Athens would have defied the town planner, and much the same was true of Rome. At the time of the Renaissance, however, there grew up in Southern Italy, with its wealth and aristocracy, a love of the private garden. From Italy the fashion spread to France and England, but always as the private domain of the wealthy proprietor. Paris was the first city to democratise, so to speak, the joys of the garden for the benefit of the whole populace. The subject brought them face to face with the smoke evil. The great architectural achievements of history were due to tyrannical despotism, and they as an Institute associated with engineers and architects represented wealth and power. They represented forces which could effect very great reforms, and he hoped they would seek by wisdom and study and by mutual co-ordination to use that power to the best end.

MR. CARBY HALL seconded the motion, and said his feeling was that town planning to be successful required a combination of the architect and surveyor, engineer and landscape gardener.

The motion was carried.

THE PRESIDENT, in reply, said it was his desire to raise a greater interest in landscape architecture, for they wanted more landscape architects.

"Journal" of the Town-Planning Institute.

We have before us the first number of Volume 10 of this *Journal*, which is notable as a departure from the old form of the Institute's *Journal*. A great deal of criticism was, we understand, directed against the *Journal* in its old form, members complaining that it contained practically nothing but the actual papers read at the meetings. During the current year a sub-committee was appointed by the Institute to consider the possibility of improving it, and it was decided to appoint an honorary editor, which office was finally undertaken by Mr. Reginald Bruce, A.R.I.B.A., and the issue which we are noticing is the result of his work. Both the Institute and their honorary editor are to be congratulated on the advance in usefulness of the *Journal* with this number. It now contains an editorial and notes, a report of the recent Conference at York, nearly two pages of news items of interest to town planners, and various reviews, notices of future events, with comments on Ministry of Health reports, correspondence, etc.

HYGIENE AND ARCHITECTURE.

THE first of a series of Chadwick Public Lectures was given at the Royal Society of Arts, on November 9, by Major Harry Barnes, V.P.R.I.B.A., F.S.I.

The lecturer dealt with the relation between hygiene and architecture, and after quoting a definition of hygiene "as the art of securing a healthy mind in a healthy body," and of architecture "as the index of the mental and moral qualities of a people," proceeded to point out the conclusions which might be derived from these definitions, namely: that in the history of a people their hygienic developments would precede their architectural achievements seemed to be falsified by the facts. There had been two great periods of architectural perfection in European civilisation. The hygiene age, however, was still in the future. In the days (1357) when it was the custom to throw filth and rubbish into the Thames, the genius of Gothic art bloomed to its finest flower. While admitting the attention paid to hygiene in Hellenistic and Latin cities, there was nothing to support the thesis that architecture was the aftermath of hygiene. On the contrary, while architecture achieved its crowning glories when sanitary science was almost unknown, the battle of public health was won when architecture was at its lowest ebb.

The lecturer then proceeded to show that the conditions that gave hygiene its problems and architecture its chances were the conditions which arose from urbanisation. The perception of the fact that architecture was more than the aggregation of precious materials, enriched by craftsmanship, led to the science of town planning, and this science represented the unified conception of the things which were for the health and happiness of a community.

In conclusion, the lecturer insisted that it was the interpenetration of country with town which was the vital essence of town planning. From every town it should be possible to reach the country through an uninterrupted environment of grass, trees and water. Playgrounds, gardens and parks were the links in the chain which should bind the country to the town.

NEW BRIDGE AT READING.

THE new bridge over the Thames at Reading, opened to traffic last month, is a good example of reinforced concrete construction. As may be seen from our illustration, the bridge is of the arch type, the main span being 180 ft. between springings, which is the largest of its type in the country.

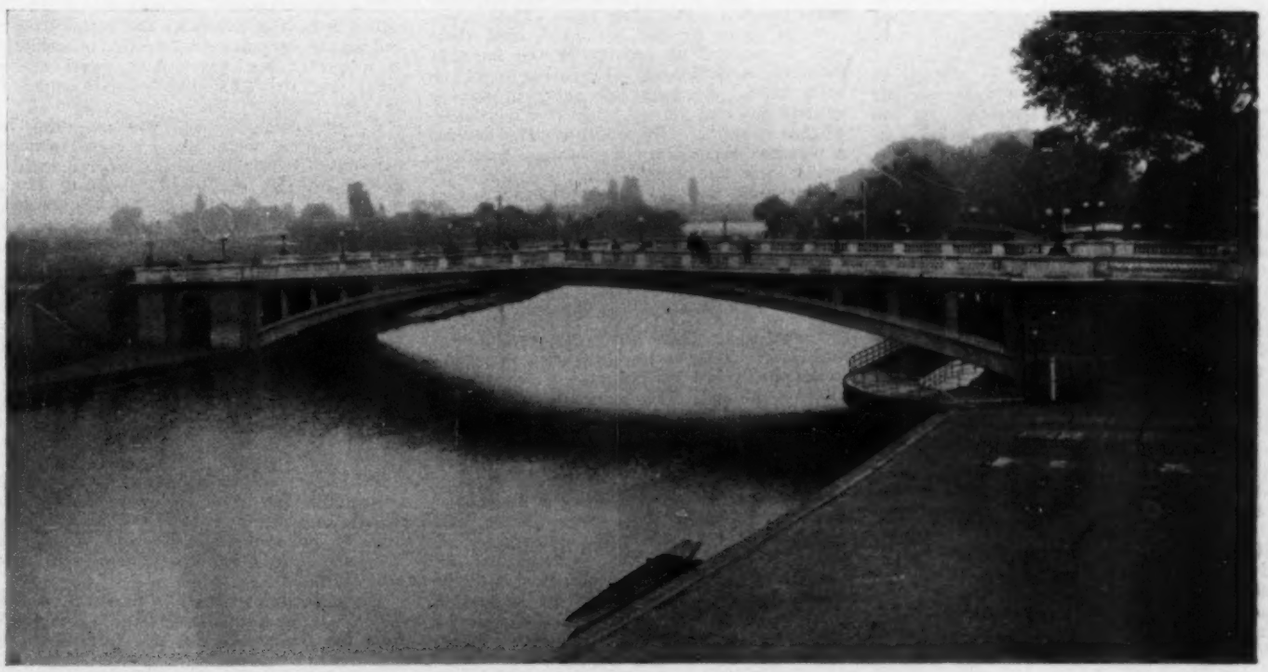
The four main ribs forming the arch and carrying the roadway are tailed down on each side of the bridge by mass concrete abutments, about 50 ft. long by 45 ft. wide, which carry a 12-ft. archway, flanked by piers and panel walls forming the approaches.

The bridge is 40 ft. in the clear between parapets, providing a 27-ft. roadway, with two footpaths, each 6 ft. 6 in. wide. Staircases on each side of the river have been constructed to afford access to the towpath and banks.

In addition to the wing walls on the Caversham side, the viaduct and retaining walls on the Reading side are in reinforced concrete, and a towpath has been constructed on piles under the bridge, clear from the bank, on the Reading side.

The parapets of the bridge are in Portland stone throughout, and, with its low rise, the structure presents a distinctly pleasing appearance. The bridge was designed for the standard rolling loads laid down by the Ministry of Transport, and, under test before being opened to traffic, the maximum deflection was found to be only ¼ inch.

Messrs. L. G. Mouchel & Partners, Ltd., 38, Victoria-street, S.W.1, acted for the Reading Corporation as consulting engineers, and the construction throughout was carried out by Messrs. Holloway Brothers (London), Ltd., under the supervision of Mr. J. B. Wilson resident engineer.



Reinforced Concrete Bridge at Reading.

THE SURVEYORS' INSTITUTION.

PRESIDENTIAL ADDRESS.

In the course of his inaugural address at the opening meeting of the present session of the Surveyors' Institution, MR. J. I. DAVIDSON (President) referred to the steps which were being taken by the principal societies concerned for the better organisation and regulation of the profession by means of a Registration Bill. Since the last presidential address, he said, the Landed Property Practitioners' (Registration) Bill had been drafted. Sir E. Chatfeild Clarke introduced it in the House of Commons, and it was read a first time and ordered to be printed, but unfortunately it was crowded out by prior Bills on the Order Paper on the date allotted for its second reading, and consequently made no further progress during the Session. On the whole that was not perhaps to the disadvantage of the Bill. A certain amount of opposition, friendly and otherwise, to the measure in its original form was disclosed, and the Joint Committee of the three promoting societies had since been engaged in considering amendments which had been drafted with the object of eliminating any opposition for which there seemed reasonable ground. He had every reason to hope that the Bill would be re-introduced next Session in a form which might prove more generally acceptable. It was, therefore, important that members should show that in promoting that legislation they were mainly influenced by a desire to improve and regularise the qualifications necessary for the practise of their profession, and thus to advance the interests of the public by making those who practised it more competent to carry out the responsible and often difficult duties entrusted to them.

There were two other matters of such importance to the profession that the Council had thought it desirable to issue to members special explanatory publications thereon. In May last a Memorandum on the Town-Planning Acts, prepared by the Council with the legal assistance of Mr. William Allen, was circulated; while in September they sent out a Memorandum on the Rent and Mortgage Interest Restrictions Act, 1923, prepared by Mr. Graham Mould, and bringing up to date his work on the earlier measure, which was issued in July, 1920.

With regard to the former a statutory obligation had been imposed on all the more important urban authorities to prepare town-planning schemes within the next six years, and that requirement involved the regulation of development over many thousands of acres. Property ripe for building, or likely to become so in the early future, would be affected in all parts of the country, and it was essential, therefore, that surveyors responsible for the management of land liable to be included in schemes should make themselves familiar with the various Acts and the procedure thereunder. It seemed clear that town planning had come to stay, and the heavy expenses in connection with necessary town improvements imposed upon local authorities by haphazard development in the past would alone seem to justify the movement. In order to be successful, however, it must have general support, and mutual co-operation between local authorities and landowners was, therefore, of first importance. If they acted together and agreed upon the broad outline of the scheme, the details would present little difficulty of adjustment. He urged upon those representing landowners in urban and semi-urban districts to get into touch with the executive officers of town-planning committees and with the agents of adjoining estates, in order to lay down mutually-agreed-upon lines of development. With a determination to surmount difficulties, and a single-minded desire to arrive at a settlement, he felt assured that that could be done, and that in the long run the landowners would benefit by the greater feeling of confidence which would be engendered.

The Memorandum on the Rent Restrictions Act dealt with a matter of even wider present application than the Town-Planning Act, though fortunately it had not the permanent character of the latter.

The Council drew up an exhaustive statement upon the position under the 1920 Act, which formed the text of Mr. Gerald Eve's evidence before the Departmental Committee which was set up by the Minister of Health to consider and report upon the position which would arise on the termination of control in June of the present year. While the Council made a number of proposals for removing or modifying difficulties which had disclosed themselves under the original Acts, they strongly urged that the need for emergency legislation of that class was due to the shortage of houses, and that the only real way of doing away with that need was to strike at its very root by putting an end to factors which militated against their erection. One of the principal was the Restrictions Act itself. The control established thereby had done much to destroy confidence among the three classes whose co-operation was needed to provide houses—the builder, the capitalist, and the investor, and until control had been withdrawn and confidence re-established a vicious circle would be set up in which shortage would be followed by restriction, while restriction would not be removed until the shortage had been made good.

The new Act, while not going so far as those looking to the future might wish, at any rate made a beginning in the withdrawal of control. In certain circumstances properties were freed from restriction, while in other cases the restrictions were made less onerous. The life of the principal Act was terminated definitely in June, 1925, but Part II of the new statute gave certain general powers to the Court to relieve sitting tenants from alleged hardship or oppression for a further period of five years. Part II also empowered the Minister of Health to establish reference committees to whom such questions might be referred by the Court for consideration and report. Those provisions had caused a good deal of apprehension among builders and possible investors in property as setting up a precedent which might be dangerously extended by future legislation. They might, therefore, to some extent counteract the good effect of Part I of the Act in restoring confidence in house property as an investment. They must, however, hope for the best, and trust that, with a renewal of activity in the building industry, a sufficiency of houses might be built during the next two years to remove entirely any real ground for further legislation of that character. He thought all who had a personal experience in housing questions would agree that the growing population could be far more economically housed by private enterprise than by public authorities.

Victoria and Albert Museum.

The west half of the Cast Court at the Victoria and Albert Museum has just been re-opened to the public, with the exception of a small strip at the south end. This court now contains an important series of casts from mediæval English sculpture, including the twelfth-century doorway of Barfreston Church, the carved slabs from Chichester and Bradford-on-Avon, and Romanesque sculpture from Durham and York; the magnificent thirteenth-century angels and Annunciation Group from Westminster Abbey, and a number of casts from the south door and the "Angel Choir" at Lincoln, with details of sculpture from Wells and elsewhere; and a rich collection of casts from fourteenth- and fifteenth-century misericordes, besides recumbent effigies and architectural details.

ARCHITECTS' AND SURVEYORS' ASSISTANTS' PROFESSIONAL UNION.

The Origin of London and its Building Laws.

A JOINT meeting of the Metropolitan branch of the Architects' and Surveyors' Assistants' Professional Union and the Associate Members of the Institution of Municipal and County Engineers was held at the Holborn Council Offices last week. Mr. C. A. Austin occupied the chair, and Mr. W. R. Davidge, F.R.I.B.A., gave a lecture, illustrated with lantern slides, on "The Origin of London and its Building By-laws."

After outlining the development of London, the lecturer said the first Building Act was passed in 1189, and was still the foundation of our building laws; it mainly dealt with party walls. Various other Building Acts had been passed from time to time which dealt with the height of buildings in relation to the width of the roads, the overhanging of one story over the story below, &c., while the present-day District Surveyors claimed to be the official descendants of the "Surveyors or Supervisors" appointed in 1667.

Turning to present-day troubles with overcrowding on site and traffic difficulties, plans were shown of various proposed schemes, such as surrounding the town with a belt of park land. The lecturer concluded with various diagrams of rates, density of population, &c., in the Metropolis to-day.

A vote of thanks to the lecturer was proposed by Mr. C. A. Austin, seconded by Mr. F. S. Akast (Paddington Borough Surveyor's Department), and supported by Mr. J. A. Gould (Hon. Secretary, A.S.A.P.U., Metropolitan District).

ARCHITECTURAL NOTES IN KENYA COLONY.

THE Municipal Council of Nairobi have elected Mr. Harold E. Henderson, F.R.I.B.A., of the firm of Messrs. Harold E. Henderson, F.R.I.B.A., & Partners, as their Mayor for this year. Mr. Henderson is the first elected Mayor of the capital of Kenya Colony, and his appointment adds another name to the list of architects who have undertaken mayoral duties.

The East African Institute of Architects (allied with the R.I.B.A.) are formulating a Bill for the compulsory registration of architects in Kenya Colony, which it is hoped will be ready for the first Legislative Council in January, 1924.

A competition for the war memorial for Kenya Colony, consisting of a large memorial hall, offices, and reference library, has resulted in the selection of Messrs. Wevill & Davis, A.R.I.B.A., as architects. The competition was assessed by a committee having as its assessor Mr. Harold E. Henderson, F.R.I.B.A., of Nairobi.

The tower of St. Stephen's Church, Nairobi, Kenya Colony, has just been completed from the designs of the late Mr. Temple Moore, the local supervising architect being Mr. Hurle Bath.

Extensions to the Y.M.C.A. in Nairobi have just been completed from the designs of Messrs. Giles & Geeson.

UGANDA.

The Public Works Department of the Uganda Protectorate are about to erect the Kabaka (King) of Uganda's Palace departmentally, from the designs of Messrs. Harold E. Henderson, F.R.I.B.A., & Partners, selected in open competition.

The premises of Messrs. Whiteaway Laidlaw & Co., Ltd., at Kampala, have been completed, from the designs of Mr. H. Hurle Bath, of Nairobi.

THE ROYAL ARCHÆOLOGICAL INSTITUTE.

A MEETING of the Royal Archæological Institute was held in the apartments of the Society of Antiquaries, Burlington House, Piccadilly, W., on Wednesday last week, presided over by Mr. Hewart Bell, who announced that Professor Sir W. Boyd Dawkins had been provisionally elected by the Council as President, to succeed the late Sir Henry Howorth.

In a paper read by Mr. Aymer Vallance, M.A., F.S.A., entitled "A Criticism of Thirteenth-Century Architecture," illustrated by lantern slides, he stated that there were other factors beside the pointed arch which distinguished Gothic and Norman architecture, namely, ribbed vaulting and the flying buttress, and to the latter belonged the place of first importance. Of early work in which there appeared at least the germ of rib-vaulting was the crypt of Gloucester Cathedral (1089–1100), and the rib-vault at St. Nicholas' Priory, Exeter. There were not only transverse, but diagonal arches, which in spite of their primitive square section could justly be described as rudimentary ribs. The nave of Remigius's Cathedral, Lincoln, was vaulted in 1092, and that in a measure anticipated Durham Cathedral; but the latter was the first great church to be rib-vaulted throughout; the choir between 1099 and 1104, and the nave, with its pointed transverse arches, between 1128 and 1133. The primary purpose of the introduction and use of ribs was to enforce the groined vaulting with a permanent centring of stone. The simplest form of groined vaulting, identical with that practised by the Romans, was a cross vault formed by the undersection at right angles, of two semi-cylinders of equal diameter.

In England the introduction of the ribbed vault did not immediately effect a change from Romanesque to Gothic, which cannot be said to have come about until the second half of the twelfth century. In 1128 the Cistercian order was introduced into England; its puritanical rule, which rigorously excluded every kind of decoration, was not without effect, and though their edifices in the early period were bare and unattractive, they were well considered and soundly built.

In 1180, at Canterbury, flying buttresses first showed themselves in the open air, although they appeared earlier at Durham Cathedral entirely hidden under the aisle roof. It had been said that Gothic builders of the best period seemed to have been physically unable to do anything in bad taste. The design of even the humblest churches displayed originality and a feeling for beauty which placed them in the front rank of creative artists. Good taste ruled everywhere; never was anything done to offend; but the lecturer was very far from thinking that the work of the thirteenth century was perfect. The builders of that period, he said, had a great deal to learn, which their successors in the fourteenth and fifteenth centuries happily supplied, at any rate in the way of æsthetics. The difficulties which faced them were so tremendous and absorbing that there was little leisure left to devote to secondary considerations. Their attempts at applied decoration lead one to think that their brains must have been thoroughly exhausted with the effort and strain of constructional problems, and that they had no power to develop the ornamental side of architectural composition. Such decoration as did occur was often neither logical nor coherent, and this defect was particularly noticeable in the treatment of the spandrel of thirteenth-century work.

A vote of thanks was passed to the lecturer.

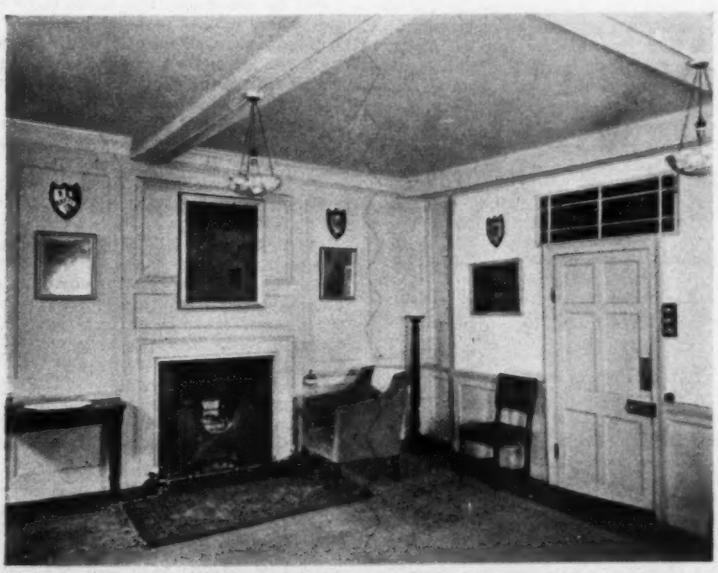
THE BRITISH EMPIRE EXHIBITION.

On Monday the Palace of Industries and the Palace of Engineering at the British Empire Exhibition, Wembley, were, on their completion by the contractors, Messrs. Sir Robert McAlpine & Son, officially handed over to Sir Travers Clarke on behalf of the Board.

After luncheon at the Great Central Hotel, Marylebone, at which Sir Travers Clarke presided, a party proceeded to Wembley for the purpose of inspecting the buildings, and watching the ceremony of handing over the two golden keys—a symbol that the two buildings had been officially handed over.

In a short speech Sir Robert McAlpine said that the best thing he could do would be to let the buildings speak for themselves. He further mentioned that the buildings now reaching completion were the largest concrete buildings in the world. Fifty years ago Scottish peasants would not believe that concrete buildings could possibly keep standing; they were under the impression that the elements would cause them to fall down like a pack of cards. Now, however, his triumph is complete; his faith vindicated. Certainly the white beauty of the Palaces themselves, the delicate minarets, and the graceful bridges spanning the artificial lake, represent something historic in exhibition building.

Sir Travers Clarke, in reply, said that the contractors had actually finished their contract a day before its termination.



Alterations to the "Mitre" Hotel, Oxford.

MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects. *(See our last issue.)*

EXHIBITION NOTES.

THE R.B.A.

IT is well, perhaps, that a foreword to the catalogue of the 116th exhibition of the Royal Society of British Artists reminds us of the courage of the Society in attempting to discover and help on budding talent, and that upwards of a quarter of a million pounds and numerous commissions have come to artists who have exhibited on the Society's walls. There are many exhibitions afoot nowadays, but budding artists still find it hard enough to find a happy and successful location for their works, notwithstanding the fact that such a large number of pictures would be as well left in the obscurity of the studios. The admirable display of water-colours in the large gallery of the Society should prove attractive to the public, and there are certainly amongst them quite a fair number which deserve their publicity. A strong, vigorous drawing of some distinction is that of Château de Montgorguer (205), by E. A. Cox (the winner of Parsons' decorative colour competition). The "Impotence of Opulence" (204), by Charles Ince, which hangs about the first-named drawing, is a fine study in greys of a ruined castle. A. E. Cooper's two drawings of Ludlow (202 and 206) are telling subjects broadly treated. "Low Tide" (198), by Ernest W. Haslehurst, is a delicate and pleasing impression of grey and green. "The Auld Brig" (190), by A. Carruthers-Gould, is quite a masterly sketch of its sort. A charming and poetic drawing in grey-greens is "Il Monastero" (173), by St. Clair Marston, admirably and —may we not say?—lovingly painted. A clever little impressionist sketch in genuine water-colour is the "Slopes of the Pyrenees" (171), by A. H. Elphinstone. Solomon J. Solomon, the gifted president, is not at his best in his exhibits 167 and 166. A good impressionist sketch of "Entrance to the Old Bailey" (140) is by Barry Pittar. An excellently rendered portrait sketch by Dorothea Sardau de Fano is the Dr. Ernest Barker, M.A., evidently a good delineation of character. In "The Homeland Twilight" (105) Fred F. Foottet gives us another of his striking decorative panels, but this time it appears to us just a little too strident: strong as his work always is he has generally great judgment; his "Dorset Barn" (229) seems to us a very perfect piece of work of its kind. There are several other drawings which claim notice, such as Barry Pittar's large water-colour of the High, "Oxford" (254); "The Horses at St. Mark's, Venice" (268), by Mabel Bruce Low; Leonard Richmond's glowing pictures (38, 276, and 281); Arthur Spooner's dainty figure subjects (320 and 326).

THE WALKER GALLERIES.

At the Walker Galleries there is a wonderful exhibition by the Embroiderers' Guild, showing how beautiful and varied in effect the work of the needlecraft may become. Examples from France, Holland, Spain, and Sweden are remarkably fine and the work contributed by our own and other Queens is a fascinating part of the show. The exhibition will repay a close and critical examination, and prove that in technique we can still compare favourably with almost anything which has been done.. A small exhibition of clever impressionist sketches by Mary Hogarth is on view at these galleries.

THE GARDNER COLLECTION.

Time will be all too short for any fair appreciation of the wonderful Gardner Collection at Messrs. Sotheby's, and architects will especially regret the dispersal of such a valuable and amazingly large record of London as was here collected. One realises so fully from these engravings much of the charm of old London, as, for instance, in the folio containing the illustrations of old Buckingham House and Hungerford Market.

THE BUILDING TRADE.

ESTIMATING FOR SMALL BUILDERS.—IX.

By J. H. BARNS, F.I.O.B.

GENERALLY.

It will be observed that in these articles the labour or production costs are mostly stated in money values for work in the London area. If it were desired to obtain comparative figures for some areas where the rate of wages is lower than in London these could be obtained by comparing the wages paid according to the list of local wages in *The Builder*, and the difference can be expressed by a percentage off the money values stated. The practical way of dealing with production costs is by stating them in a money value; the theoretical method is by separating the money value into hours of mechanic's and labourer's time, regardless of the fact that machinery may have to be utilised for the job. Production costs may or may not include cost and use of machinery for particular work in question, as, for instance, the use of crane in excavation or brickwork and motive power for stonework, and it is somewhat unpractical to express such costs in hours of mechanic and labourer when part of the work has been performed by machine. What the average builder wants to know is some idea of the amount that other firms are paying for their production costs; it is then up to him to produce his work at the same or a lower figure, using any mechanical devices which may seem to help in the required direction.

PLUMBING.

The first item is usually lead laying to flats, the total weight being stated, but it is not usual to state the weight of sheet lead in lbs. per foot. If it is a large lead flat it is necessary to carefully set out the size of the bays to fit in with some ordinary size to which sheet lead is rolled, so as to avoid unnecessary cutting and waste. The sheets of lead are rolled to about 30 ft. in length and 7 to 8 ft. in width, and are from 3 to 8 lbs. per ft. super in thickness. Other thicknesses are rolled, but they are not ordinarily used by builders.

The price of sheet lead frequently fluctuates. The following are the current prices of lead in sheets and pipes supplied by merchants and delivered in London:—

Milled sheet lead in sheets 4 lbs. per ft. super and upwards ..	36/6 per cwt.
Do., but 3 lbs. per ft. super, 10/- per ton extra	37/- „ „
If cut to under 15 ft. by 7 ft., that is less than half-sheet is ordered, additional charge	2/- „ „
If cut and less than 5 cwt. is ordered, additional	3/- „ „
If cut into strips under 6 in. wide, say for flashings for a large quantity, extra	2/6 „ „

ADDITIONAL CHARGES IF SMALL QUANTITIES ARE ORDERED.

Under 5 cwt. and not less than 3 cwt., extra	1/6 per cwt.
Under 3 cwt. and not less than 1 cwt., extra	3/- „ „
Under 1 cwt., extra	4/- „ „

The basis price for lead pipes is 10s. per ton, or 6d. per cwt. over the price of sheet lead = 37/- per cwt.

The basis price for lead soil pipe is 3/6 per cwt. over the price of sheet lead = 40/- per cwt.

The same extras for cutting and supplying lead pipe in small quantities as for sheet lead, except that it is not usual to charge for cutting when half-coil of lead pipe is ordered.

The following example will give some indication as to how these charges by the lead merchant work out if under 4 cwt. lead pipe is ordered.

Example:—

Basis price of sheet lead ..	36/6	per cwt.
Extra for pipe	6d.	„ „
Cutting to lengths if so ordered	3/-	„ „
Extra for small quantity ..	1/6	„ „
Total	41/6	„ „

Example:—

Say 4 cwt. sheet lead cut to any rectangular size required:

Basis price	36/6	per cwt.
Cutting	3/-	„ „
Small quantity	1/6	„ „
Total	41/-	„ „

Say 1 cwt. sheet lead cut to any rectangular size required:

Basis price	36/6	per cwt.
Cutting	3/-	„ „
Small quantity	4/-	„ „
Total	43/6	„ „

Say 4 cwt. sheet lead cut into strips, 6 in. wide:

Basis price	36/6	per cwt.
Cutting	3/6	„ „
Small quantity	1/6	„ „
	41/6	„ „

The labour of laying lead to flats, including dressing over the rolls, costs about 10s. per cwt. Gutters and ordinary cover flashings are worth about 12/6 per cwt. The ordinary description of flashings usually includes both cover and stepped flashings. The labour to stepped flashings is considerably more expensive than the ordinary cover flashings, being worth at least 20/- per cwt. for labour, but it is not unusual to price them all at the same rate. Lead soakers cost about 6/- per cwt. for labour, and are often priced at about the same rate as lead flashings.

Lead being a somewhat expensive item, it is necessary for the sheets to be carefully set out so as to be cut with the least possible waste. The amount included for waste—5 per cent.—is an approximate figure to cover the waste and possible loss on the cutting up of the lead sheets. It is not unusual for some firms to set out the exact sizes of the lead required, and get a quotation from the lead merchants for the material ready to fix. The advantage of this method is that the builder can see at once exactly how he stands in relation to his quantities, but in practice this would seem to somewhat retard the progress of the work, as it would be impossible to obtain all the sizes required for the sheet lead at an early stage of the job, and this method would probably result in a delay in getting the material.

Example:—

Cwts.

— Wt. milled lead and labour in laying to flats.

	£	s.	d.
Milled lead, per cwt.	1	16	6
Waste, etc., 5 per cent.		1	10
	£1	18	4
Labour		10	0
	£2	8	4
Profit and oncosts, 15 per cent. ..		7	3
Per cwt.	£2	15	7

Bossed end to rolls, 1s. each.

EXTRA LABOUR AND SOLDER TO CESSPOOLS.

No particular size being stated, it is, therefore, difficult of analysis. All that is involved is the additional labour and the soldered angles of the cesspool. The labour to the lead is already included in the weight, and there is little extra labour on the cesspool apart from the angles already stated. They are worth from 6s. to 10s. each. In respect of soldered dots, the sinking of the woodwork underneath is usually measured in the carpenter, and what is required is to dress the lead into the sinking and fix a brass screw and solder over, and this for labour and solder is worth about 1s. 3d. each. Lead buttons for securing lead on top of a stone cornice are worth about a similar amount; although there are so many sizes of these the weight of the lead would be a considerable factor in arriving at the price.

With the great advancement made in sanitary science and the improvement in construction of sanitary apparatus, care is needed in the arrangement of pipes and the selection of materials of which they are made. If the water supply is to be obtained from the Metropolitan Water Board the pipes must be in accordance with their requirements as to weight and thickness of metal. The weights are:—

½ in. dia. rising main, 6 lbs. yd. run, generally known as 30's, *i.e.*, 30 lbs. per 15 ft. run.

¾ in. dia. rising main, 9 lbs. yd. run, generally known as 45's.

1 in. dia. rising main, 12 lbs. yd. run, generally known as 60's.

1¼ in. dia. rising main, 16 lbs. yd. run, generally known as 80's.

For waste pipes or pipes with open ends, the usual weight is:—

¾ in.	waste pipes	5½ lbs. per yd. run
1 in.	„	9 „ „
1¼ in.	„	13 „ „
1½ in.	„	15 „ „
2 in.	„	21 „ „

All the water fittings must be stamped by the Metropolitan Water Board that they are in accordance with their requirements, and they rightly insist upon a good standard of fitting. Iron pipes may be used for water supply, but there is the objection that the water causes the pipes to rust, which is apt to stain the basins. Wrought iron pipes are made in three qualities—the lap welded gas tube, water tube, and steam tube. The gas tube is supplied painted black, the water tube blue, and the steam tube red.

If the water is not obtained from the Water Board, but is obtained from a well sunk on the consumer's premises, this may possibly produce very soft water which will have a soft corrosive effect on the metal, and is likely to make the joints and welds of iron pipes leak. Well water will have a similar effect upon boilers which are used for heating water for domestic purposes, causing a corrosion of the joints and seams of the boiler. This can be obviated by treating the boiler with "Bower Barff" process, or using copper boilers and copper pipes. The latter, of course, are very expensive.

Small lead service pipes are usually sold in coils of 60 ft., and the larger pipes either in 36 ft. coils or 10 or 12 ft. lengths. In a cheap class of work the lead pipes would be fixed to the wall with iron wall hooks, and connected with the usual soldered joints. In a better class of work the pipe is secured with lead tacks which are soldered on to the pipe and fixed with nails to wall. The tendency nowadays is to make soldered joints (sometimes called "egg" joints) less obtrusive, and consequently less solder would be required for such work.

The amount of solder used for joints is usually calculated by taking the unit amount in lbs. of solder, thus:—

1 in. pipe should require 1 lb. solder for joint.

4 in. joint required 4 lbs. solder.

In practice these figures are likely to be somewhat different, as they depend on the skill of the plumber's mate and the care of the plumber. If the plumber's mate lets the metal pot get continually red hot the solder will waste and turn to dross, and the plumber must be

careful to see that all the metal he spills is returned to the pot for re-use.

Example :—

— ft. run ½ in. lead rising main with and including all running joints and fixing, including bends, tacks, &c.

	s.	d.
1 ft. run ½ in. lead pipe—2 lbs. at 37s. cwt.		8
Tacks, say		1
Labour, at 4d. ft...		4
	1	1
Add for soldered joints and nails, say, 7½ per cent.		1
	1	2
Add profit and oncosts, 15 per cent. ..		2
Per ft. run	1	4

LEAD SERVICE PIPE.

Diameter.	½ in.	¾ in.	1 in.	1¼ in.
Weight per ft. run ..	2 lbs.	3 lbs.	4 lbs.	5½ lbs.
Cost per ft run ..	/8	..1/–	..1/4	..1/8
Plain tacks	/1	.. /1	.. /1½	.. /2
Labour	/4	.. /6	.. /8	.. /10
	1/1	..1/7	..2/1½	..2/8
Add soldered joints and nails, say, 7½ per cent. ..	/1	.. /1½	.. /2	.. /2
	1/2	..1/8½	..2/3½	..2/10
Add profit and oncosts, 15 per cent.	/2	.. /3	.. /4	.. /5
Per ft.	1/4	..1/11½	2/7½	..3/3

LEAD WASTE PIPES.

Example :—

— ft. run ¾ in. lead waste pipe with and including all running joints, and fixing, including bends, tacks, &c.

	s.	d.
1 ft. run ¾ in. lead waste pipe—2 lbs. at 37s. cwt.		8
Tacks, say		1
Labour, at 6d. ft...		6
	1	3
Add for soldered joints and nails, 7½ per cent.		1
	1	4
Add profit and oncosts, 15 per cent. ..		2½
Per ft. run	1	6½

LEAD WASTE PIPE.

Diameter.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Weight.	2 lbs.	3 lbs.	4½ lbs.	5 lbs.	7 lbs.
Ft. run waste pipe ..	/8	..1/0½	..1/6	..1/8½	..2/5
Plain tacks	/1	.. /1½	.. /1½	.. /2	.. /2
Labour	/6	.. /8	.. /10	..1/–	..1/2
	1/3	..1/10	..2/5½	..2/10½	3/9
Add soldered joints and nails, say, 7½ per cent. ..	/1	.. /1½	.. /2½	.. /2½	.. /3½
	1/4	..1/11½	2/8	..3/1	..4/0½
Add profit and oncosts, 15 per cent...	/2½	.. /3	.. /4½	.. /5½	.. /7½
	1/6½	..2/2½	..3/0½	..3/6½	..4/8

Bends are measured separately for all pipes over 1½" dia.

The lead tacks included are for the simplest and plainest description; should heavier or "ornamental" tacks be required the additional cost must be added. The labour is for the work being carried out under the most favourable circumstances. The labour is stated at the same rate to the heavy service pipes and waste pipes, as the former are usually in longer and straighter lengths than the latter. With respect to the weight per ft. run of lead pipe, should the estimate state what weight is required, it should be carefully compared with the Water Board's regulations to see that it corresponds, as probably in another part of the estimate there will be a clause to state that all the work must comply with the regulations of the local authorities.

Lead pipes are supplied in about ten different weights or thicknesses for each diameter of pipe, a list of which can be obtained from lead merchants. Sometimes the pipes are specified to be light, middling, or strong. These are only general indications of what is required.

Example :—

— ft. run 4 in. lead soil pipe and including all running joints and lead tacks soldered on 3 ft. 6 in. apart, and securing with galvanised nails.

10 ft. run 4 in. × 7 lb. lead soil pipe weight 76 lbs., at 40s. cwt. ..	£1	7	2
Waste, 2½ per cent.			8
4 lbs. solder		4	0
Nails, &c.			6
Labour fixing	1	0	0
3 lead tacks, say		1	8
For 10 ft. run	£2	14	0
For 1 ft. run		5	5
Add for profit and oncosts, 15 per cent.			10
Per ft. run..		6	3

It is worth about the same price for labour per ft. run for both 3½ in. and 4 in. diameter lead pipes.

The cost of branch joints will depend upon whether they are wiped on the bench or in position.

LABOUR AND SOLDER TO BRANCH JOINTS.

Size of pipe.	4 in.	3 in.	2 in.	1½ in.
	7/–	..5/9	..4/6	..3/6
Add 15 per cent. profit and oncosts ..	..1/–	.. /10	.. /8	.. /6
	8/–	..6/7	..5/2	..4/–

Size of pipe.	1½ in.	1 in.	¾ in.	½ in.
	2/9	..2/6	..2/3	..1/9
Add 15 per cent. profit and oncosts ..	.. /5	.. /4½	.. /4	.. /3
	3/2	..2/10½	..2/7	..2/–

EXTRA TO BENDS.

Size of pipe.	4 in.	3 in.	2 in.	1½ in.
	4/6	..4/–	..2/6	..2/–
Add 15 per cent. profit and oncosts ..	.. /8	.. /7	.. /4½	.. /3½
	5/2	..4/7	..2/10½	..2/3½

IRON SOIL PIPE.

L.C.C. "coated" iron soil pipe and fixing with ears, including cutting to lengths and jointing with molten lead joints.

Diameter of pipe.	2 in.	3 in.	4 in.
Per ft. run	1/10	.. 2/6	.. 3/9
Bends and fixing ..	4/3	.. 5/–	.. 7/–
Branches and fixing ..	5/9	.. 7/3	..10/–

There are many different weights and qualities of plumber's brasswork. The following prices are for a fair average quality of fitting :—

S.D. Stop Valves and Unions (stamped M.W.B.) with unions and two joints and fixing.

	1½ in.	1¼ in.	1 in.	¾ in.	½ in.
	44/–	..28/6	..18/6	..13/6	..10/6
Add profit and oncosts 15 per cent.	6/7½	.. 4/3	.. 2/9	.. 2/–	.. 1/7
	50/7½	..32/9	..21/3	..15/6	..12/1

Crutch top bib taps (M.W.B.) and joints and fixing.

	1 in.	¾ in.	½ in.
	12/9	.. 7/6	.. 5/6
Add profit and oncosts 15 per cent. ..	1/11	.. 1/1½	.. 10
	14/8	.. 8/7½	.. 6/4

Brass boiler screws and joints and fixing.

	1¼ in.	1 in.	¾ in.	½ in.
	4/10	..4/–	..2/8	..2/2
Add profit and oncosts 15 per cent.	/9	.. /7½	.. /4½	.. /4
	5/7	..4/7½	..3/0½	..2/6

Heavy brass socket thimbles and two joints.

For pipe.	4 in.	3 in.	2 in.
	9/6	.. 8/6	.. 6/6
Add profit and oncosts 15 per cent. ..	1/5	.. 1/3	.. 1/–
	10/11	.. 9/9	.. 7/6

The cost of fixing sanitary fittings will vary considerably with the quality and style of apparatus. The approximate cost of fixing only to sanitary fittings, including bedding and fixing all valves, overflows, washer plugs, and unions and making all joints required :—

Baths	9/–
Lavatory basins	5/–
W.c.'s and waste preventors ..	9/–
Sinks	4/6

The attendance on these items by other trades is usually measured separately.

There are many types of water waste preventors. Those used in the Metropolitan Water Board area are required to be stamped by them. The most useful type is the valveless waste preventor, as if a cistern is used that has valves in its flushing gear it is likely to be continually getting out of order. A cheap and quite a good type of the valveless cistern is the "Burlington" pattern, which is in fairly general use. It consists of a bell or dome which, when lifted, sets up the syphonic action and causes the flush.

There are many similar makes and patterns, and the only real objection to them is that they are somewhat noisy in use and have rather a heavy pull, otherwise they can be recommended. Waste preventing cisterns can be rendered less noisy by fixing a short length of pipe inside the waste preventor, so that the water from the ball valve discharges at the bottom of the cistern and not at the top, thus obviating the noise caused by the water running in. There are various patterns of what are called silent waste preventors. These sometimes consist of some arrangement of valves which sooner or later get out of order.

The following are the prices of a few of the well-known makes of ordinary cisterns :—

	s.	d.	
2 gall. "Burlington" light pattern water waste preventor (painted) including brackets and chain pull	12	3	each
Do. dó. slightly heavier do.	13	6	„
Do. do. extra heavy do. ..	15	6	„
Do. stamped N.R. and do. ..	17	6	„
(If galvanised, about 8/6 each extra.)			
Shanks' "Reliable" waste preventors (painted)	25	6	„
Doultons' "Paisley" cistern ..	48	0	„

These prices are for waste preventors with a good head of water above and fitted with high pressure ball valves, but if a low pressure ball valve is used to be suitable for positions where the head of water is not great the cost would be about 1s. 6d. each extra.

The cheapest kind of flushing pipe are the galvanised steel rustless ones, which are bent and jointed in the centre, being about 3s. 6d. each. They have to be connected to the water preventor and the w.c. basin with a proper cone joint. The cost of w.c. basins will depend upon the type of fitting selected, whether they are earthenware or fireclay, whether they are white inside and out, or cane glazed outside and white inside. They must be glazed on all surfaces including the flushing rim. The prices vary from 15s. to £5 each.

It is customary nowadays to fix the w.c. seat to a lug on the w.c. basin with a couple of nickel-plated bolts, and the seat should be hinged with side hinges. The best are usually made in two thicknesses of wood. Seats with lids are now rarely used.

Deal or whitewood seats ..	9/– to 12/– each
Polished mahogany ..	21/– to 35/– „

REPAIRING LEASES: "STANDARD OF REPAIR"

A DECISION of great importance has been given by a judge of the High Court in the recent case Calthorpe *v.* McOscar and others (1923 2 K.B. 573) as to what is the standard of repair which can be required at the expiration of a long lease containing a provision that the premises should be "well and sufficiently repaired," where the character of the neighbourhood has changed.

The facts were shortly as follows. In 1825 a lease of three houses in Calthorpe-street, Gray's Inn-road, had been granted by the plaintiff's predecessor in title to the defendants' predecessor in title for a term of 95 years from June, 1824. Thus the term expired in June, 1919. At the time this lease was granted the houses were newly erected, and the lease provided that the lessee, his executors, administrators, and assigns should "from time to time, and as often as occasion should require during the said term, well and sufficiently repair, support, uphold, maintain, paint, pave, empty, scour, cleanse, amend, and keep the three several messuages and buildings thereby demised, and all such other buildings as should during the said term thereby granted be erected upon the said ground and premises thereby demised, and all the walls, fences, pavements, vaults, cellars, sinks, privies, sewers, drains, watercourses, and other appurtenances belonging or to belong thereto, in, by and with all and all manner (sic) of needful and necessary reparation and amendments whatsoever . . . ." and the lease provided that the premises as above defined, being so well and sufficiently repaired and kept, etc., etc., at the end or sooner determination of the said term should be surrendered or given up.

The plaintiff brought the action for a breach of the above covenant, and in that action an order was made by consent that the amount of damages recoverable should be referred to an arbitrator, a surveyor. The arbitrator made his award in the form of a special case for the opinion of the Court. The award stated that there was no dispute, that the measure of damages to be recovered for breaches of the covenant to repair was the cost of the repairs rendered necessary when the term ended by the defendants not having performed the covenant, but that the parties differed as to the nature and extent of the repairs that were necessary for the due performance of the covenant. The defendants contended that the effect of the covenant was limited to imposing an obligation to carry out only such repairs as having regard to the age, character, and locality of the premises, would make them reasonably fit to satisfy the reasonable requirements of reasonably-minded tenants of the class that would be likely to occupy them; but the plaintiffs contending that under the covenant the defendants were made responsible to do all needful and necessary acts, well and sufficiently to repair the premises, in the words of the covenant, without limitation to such repairs as would satisfy the class of persons likely to become occupiers of the premises.

The arbitrator found as a fact that the tenants likely to occupy the premises would only take the houses separately, or only part of a house for short terms on weekly, monthly, or quarterly tenancies, and would not accept any repairing obligations, and that the requirements of reasonably-minded tenants of such class would not include many repairs which in the opinion of the arbitrator were needful and necessary for the repair and maintenance of the property, and he therefore assessed the cost of the repairs on a double basis. If the contention of the plaintiff was correct, then, making due allowance for the age of the premises and the change in the residential character of the locality, he estimated the necessary repairs at £586, but if the defendants' contention was correct he placed the sum at £220.

We are not aware that the point raised here has ever been taken in any case concerning a repairing lease before, and therefore it is necessary to examine the judgment and the cases quoted with some particularity. The judge put the point thus: "The standard of the surveyor is one thing; the standard of the reasonably-minded tenant seems to be another thing." The judge, as regards the change in the neighbourhood, says: "Exerting common knowledge, I presume the meaning of the matter is this—In 1825 the three houses in Gray's Inn-road were country abodes—Gray's Inn-road was then a semi-rural area. With the growth of population it has slowly changed. It is now a busy and central part of a great city. The three houses or parts of them will now be let to small tenants who have their occupation near." And he proceeds to observe that in view of the profusion of case-law it seems impossible that the point of law should now call for decision, but that the question has given him difficulty and the case-law is in a confused state.

We dealt with this question at some length on December 8, 1911, in the case Lurcott *v.* Wakely (1911, 1 K.B. 905), where we reviewed the decisions, but most of them have turned rather upon the point whether the age of the structure had changed its character, so that it could not be put in the condition required by the covenant without practically creating a new house, and in Lurcott *v.* Wakely the majority of the Court of Appeal appear to have taken the extreme view that a covenant that required the tenant to "well and substantially repair and keep in thorough repair and good condition" might even involve replacing the house as a whole, but, as a matter of fact, the point decided in that case was that the operation required the erection of the front external wall, was only a subsidiary operation, and came within the covenant. A great deal of confusion in the cases has been caused by the variety of the terms of the covenant to repair, and the different construction placed upon the various expressions, and therefore it is important to note that the judge in the case we are considering, after having read and reviewed the decided cases, came to the following conclusion: "I am of opinion that none of the expressions in the various decisions cited by me add anything to the word 'repair.' That word denotes or connotes all that which is indicated by the words 'well' or 'proper' or 'substantial' or 'sufficient' or 'good' or 'necessary' or 'tenantable.' This is, I think, a useful and convenient rule to establish and it is agreeable to the bulk of authority."

This is a most important pronouncement, and if it is adopted it will do away with most of the difficulties which are experienced in practice from the multitude of decisions turning on small differences in covenants to repair, but hitherto the Courts have distinguished between the various expressions. The decision relied upon by the tenant in this case was Proudfoot *v.* Hart (25, Q.B.D. 42), and the words of the covenant in that case were "tenantable repair." We believe that case only turned on the condition of certain woodwork in a house, but the headnote to the case is "Under an agreement to keep a house in good tenantable repair and so leave the same at the expiration of the term the tenant's obligation is to put and keep the premises in such repair as, having regard to the age, character and locality of the house would make it reasonably fit for the occupation of a tenant of the class who would be likely to take it." We have not the full report of that case before us and, therefore, are unable to say how far the question of change in locality was argued, but the judge, in the case we are considering, held that that decision did not turn on any special words in the covenant or on any special facts, and that it was applicable to the case before him, and he adopted it and fixed the cost of the repairs at the lower figure named by the arbitrator.

He is reported as saying that in his opinion Proudfoot *v.* Hart supplies a useful working rule for the normal covenants to repair, however variously they may be worded; that some standard must be taken, and if the extreme views of both landlord and tenant are excluded then the views of that hypothetical person, the reasonable man, can only be taken as supplying the test, and that person is indicated in Proudfoot *v.* Hart.

This judgment is a common-sense judgment, and if, in the course of time, it is allowed to stand as the law by the courts of appeal the law of landlord and tenant will have been materially simplified to the benefit of both landlord and tenant, for to understand the law is nine-tenths of saving the costs of the law in litigation. We must add one word on the question of the varying words used in covenants, for it is necessary to say that the judge expressly excluded such special covenants as to paint at particular periods, and confined his observations to the general expressions used in such covenants.

RAILWAY COMPANIES' LIABILITY FOR DAMAGES.

IN the recent case, Nunan *v.* Southern Railway Company (*Weekly Notes*, November 3), the Court of Appeal has decided a point of importance where a passenger has been killed by negligence, and the claim is made for the death of the deceased under Lord Campbell's Act.

The deceased passenger was a workman being carried on the express terms of a workman's ticket with the condition, "The liability of the Company is limited to a sum not exceeding £100." This action was being brought by his widow under Lord Campbell's Act for damages for his death, and the question raised was whether her claim to damages was limited by the agreement between her deceased husband and the Company as to the limit of damages, and it is important to note that the Court of Appeal decided that this is not the case. Section 1 of Lord Campbell's Act (The Fatal Accidents Act, 1846) provides: "Whensoever the death of a person shall be caused by wrongful act, neglect, or default and the wrongful act, neglect, or default is such as would have entitled the party injured to maintain an action and recover damages in respect thereof, the person who would have been liable if death had not ensued shall be liable to an action for damages notwithstanding the death of the person injured." Section 2 provides that the action shall be for the benefit of the wife, husband, parent, and child of the deceased person, and "in every such action the jury may give such damages as they may think proportioned to the injury resulting from such death to the parties respectively for whom and for whose benefit such action shall be brought."

The Court of Appeal held that, since it was established by a series of authorities, including Seward *v.* Vera Cruz (1884, 10 App. Cas. 59) and British Electric Railway Co. *v.* Gentile (1914, A.C. 1034), that the cause of action given to the widow was entirely distinct from the cause of action the deceased would have had, involving a different measure of damages, the only point for the Court to consider under the Statute was whether the deceased could have maintained an action and recovered damages if death had not ensued, and here the deceased could have recovered some damages, though the amount might have been less than he was entitled to by reason of his agreement, therefore the action could be brought by his widow, and her action being separate from the cause of action of the deceased, was not subject to the limit of damages contained in the agreement with the deceased. The Court below had awarded £800, and the appeal of the defendant Company was dismissed.

UNEMPLOYMENT INSURANCE.

THE report of the Minister of Labour on Unemployment Insurance, a summary of which appeared in *The Times*, October 25, contains matter of great importance, as it covers the period of ten years since the last report. The tentative scheme of 1912 only covered some two and a quarter million of workpeople employed in certain specified industries, but the Act of 1920, which extended this scheme, applies to some eleven and three-quarter millions.

We have always regretted that the war interfered with the working of the scheme from the point of view of accurate actuarial statistics, and has prevented the normal working of insurance schemes from being accurately gauged. The limited scheme of 1912 was interfered with by the stress of war making unemployment unduly small, whilst the aftermath of war since 1921 has inflated unemployment to an unprecedented extent, and thus this great experiment has never been working in normal conditions. In the year 1918–1919 the out-of-work donation paid to civilian workers, and for sixteen months longer to ex-Service men and women, also upset the statistics, as persons were not allowed to draw from both sources, and hence the unemployment benefit funds benefited, for the donation rate was the higher of the two.

The Act of 1920 came into operation in November of that year, just about the time that it became apparent that a period of unemployment must be looked for, as a consequence of falling trade, and therefore it is convenient to start from the statement contained in the prefatory note to the report which states: "During the past two and a half years the unemployment insurance scheme has been the principal means of coping with a volume of unemployment unprecedented in the industrial history of the country—£128,000,000 has been paid in benefit in that period. Of this large sum three-fourths has been provided by, or will be a future charge upon, insured workpeople and their employers. Not more than one-quarter of the sums now being paid in benefit and of the costs of administration is provided by the taxpayer." This represents at the present time the whole of the Exchequer contribution to the scheme.

In connection with this statement it is important to observe that the sum borrowed to meet the excessive strain put upon the insurance fund, largely due to the granting of "uncovenanted benefit" during the present distress up to the end of June last, was £15,600,000, and it is this sum which is spoken of as the future charge which will be repayable by the workpeople and employers, but the report states: "This, though a large sum, is not at all disproportionate to the resources of the unemployment fund, which has at present an annual revenue of over £47,000,000," and "that the debt is not so large that it cannot be paid off in a comparatively short space of time as soon as trade revives" and the financial stability of the scheme can be re-established.

The report desires to combat a widespread impression that unemployment benefit, or at any rate so much of it as is "uncovenanted," is provided by the taxpayer, and states that one-fourth and no more of the sums now being paid in relief and of the cost of administration falls upon the Exchequer. The "uncovenanted" relief as distinguished from covenanted benefit is explained—"Covenanted benefit" is benefit drawn as of right by virtue of contributions; "Uncovenanted benefit" is a discretionary grant to unemployed persons who were normally wage earners in insured trades, and were genuinely seeking whole-time employment, but who have exhausted their rights derived from payment of contributions, or who, in exceptional cases, have even paid no contributions. The report points out the distinction between "uncovenanted benefit" and poor law relief. Only persons who are normally insured can draw the former, "which is, in fact, in the nature of an advance made on the faith of future payment of contributions." During the year 1922–3 it is stated that the sum of £9,450,000 in poor law out-door relief was paid to persons falling within the unemployment insurance scheme, and their dependants, in England and Wales, but "the proportion of persons in receipt of unemployment benefit also drawing relief is not precisely known." In Birmingham, where this question was tested, the proportion was about 17.3 per cent., but this, the report states, cannot be taken as typical of other areas.

The ratio of administrative expenses is 8.3 per cent., and this includes not only the organisation required for collecting benefit and assessing and paying it, but also 95 per cent. of the whole cost of the unemployment exchanges. The total contributions from employers, employed, and the Exchequer from the initiation of the scheme in 1912 to July 31, 1923, are employers, £48,000,000; employed, £44,600,000; Exchequer, £31,500,000; and the loan above mentioned and the interest thereon are repayable by the employers, employed, and the State approximately in the proportions indicated above. From this very short review it will be seen that the report is full of information which deserves careful consideration.

BOOK REVIEW.

The British Acetylene and Welding Handbook. (London: 30, Red Lion-square, W.C. 1.) Price 7s. 6d. net.

This eminently practical handbook should be read and kept for convenient reference by all users of acetylene in any form if the best results are to be obtained and risk of explosion avoided. Acetylene is either a very safe and convenient or an extremely unsafe and inconvenient form of illuminant and heating agent, according to the methods employed in producing, storing and using it. It is not only necessary that all apparatus connected with its use should be designed to be practically fool-proof, but every person proposing to employ it should be instructed in detail as to the points to observe in handling the apparatus and dealing with the gas.

These matters are set forth in this book, issued by the British Acetylene and Welding Association, from both the theoretical and the practical point of view, and notes on the history and chemistry of acetylene will be found in it, together with instructions in the practice of metal cutting and welding by the use of the oxy-acetylene flame. Although the high temperatures produced have caused the oxy-acetylene combination to be associated chiefly with metals of high melting point, the authors also recommend its use for making joints in lead and other easily fusible metals.

For minor operations, such as paint burning, an acetylene-air blowpipe has been produced for which it is claimed that it is far more efficient and cleaner than the old-fashioned blowlamp, and permits of the paint being removed with a wide scraping edge in something like half the time formerly taken to do the work.

Some micro photos of steel sections, showing the crystalline character of the material, are highly interesting in that they indicate the degree of union that can be obtained under good conditions by the use of a suitable feed wire and pure acetylene, and the failure that is liable to follow the use of unsuitable material and impure gas.

Acetylene lighting installations are described and illustrated by diagrams of generators made by several firms. The points claimed in favour of acetylene as an illuminant for isolated buildings, or in places where the supply of coal gas or electricity is dear and inefficient, are: (1) The small amount of attention necessary to keep plant and fixtures in good running order; (2) safety; (3) cleanliness; (4) the cost of installation; (5) the cost of maintenance and general upkeep; (6) the quality of the light. "The softness of the light and the absence of glare (experienced with other modern forms of lighting) puts acetylene far ahead of other illuminants." Some suggestions are made as to the utilisation of the residue left after the production of acetylene from calcium carbide. The residue is in fact slaked lime with some impurities, and can be used with advantage for making mortar and various agricultural and horticultural purposes.

INFRINGEMENT OF TRADE MARK.

IN the Chancery Division, on November 6 Mr. Justice Tomlin had before him a motion by Major & Co., of High-street, Borough, S.E., against the Dorset Farmers' Union to restrain the latter from passing off creosote and similar preparations as "Solignum," and from infringing the plaintiffs' trade mark.

Mr. Greene, K.C., for the plaintiffs, said that his clients were the makers of a well-known product called "Solignum," which was a good preservative from the ravages of the death watch beetle and was very destructive to that insect. It had become somewhat largely used, but it differentiated largely from the ordinary creosote. It had, however, become known to the plaintiffs that creosote was being passed off as "Solignum," though the latter was a very expensive article, costing 4s. 6d. a gallon, while ordinary creosote could be bought at 1s. 7d. It was known that manufacturers had great difficulties in detecting infringements and passings-off of this kind, but in the present case it was a very different state of affairs. A Captain Hewart ordered from the Wimborne branch of the defendants' Union a ten-gallon drum of "Solignum." In response to that order he received a ten-gallon drum followed by an invoice which made the charge as 17s. 6d., which worked out at a price of 1s. 9d. per gallon. He was suspicious of the goods, perhaps more from the quality than the cheapness, and he communicated with the plaintiffs, suggesting that they should analyse the goods. The result was that the article supplied was found to be ordinary creosote or some mixture, and it was another article. The defendants were communicated with in turn by the plaintiffs, who said they could offer no explanation, but added that they understood Captain Hewart wanted ordinary creosote, and they had no intention of forcing upon him the creosote for the plaintiffs' "Solignum," as was shown by the price charged.

His Lordship granted a perpetual motion against the defendants, who consented to it being taken as the trial of the action, and made the usual order for the defendants to pay the costs.

LONDON MASTER BUILDERS' SPORTS' ASSOCIATION.

(FOOTBALL SECTION.)

League Table up to and including Nov. 3, 1923.

	P.	W.	L.	D.	GOALS F.	GOALS A.	Pts.
Perrycobow	5	4	0	1	24	3	9
Minter	4	3	1	0	16	4	6
Holloway	4	3	1	0	11	3	6
Trocoll	3	2	1	0	32	2	4
Holancube	4	1	2	1	4	7	3
Vigor	1	1	0	0	5	1	2
Higadillo	2	1	1	0	5	7	2
Higgs	5	0	5	0	5	26	0
Whitehead	4	0	4	0	2	50	0

London Chamber of Commerce.

At the meeting of the Council of the London Chamber of Commerce on November 8, Mr. A. de V. Leigh, M.B.E., M.A., was appointed Secretary of the Chamber in succession to the late Mr. Charles E. Musgrave.

NEW BUILDINGS IN LONDON.

Embankment. — SHELTER. — Messrs. J. McManus, Ltd., of 237, Hammersmith-road, W.6, are erecting a weather shelter at the Victoria Embankment near Blackfriars Bridge, for the London County Council in accordance with the drawings and specification prepared by the Architect to the Council, Mr. G. Topham Forrest, F.R.I.B.A.

Kensington High-street. — ALTERATIONS. — Alterations are being carried out at Nos. 5–7, Young-street, by Messrs. Hall, Beddall & Co., Ltd., under the direction of Mr. Edgar S. Underwood, F.R.I.B.A., for Messrs. Story & Co., Ltd. The works consist of removing roof to rear portion, and constructing additional story, and thoroughly re-conditioning and re-organising the culinary department. The steelwork is being executed by Messrs. Drew-Bear, Perks & Co., Ltd., and other sub-contracts are now being arranged.

Isleworth.—BANK.—A new bank is now in course of erection for the Westminster Bank, Ltd., at Isleworth. The builders are Messrs. J. McManus, Ltd., of 237, Hammersmith-road, W.6, and the architect is Mr. G. W. Stanley Burmester, F.R.I.B.A., F.S.I., of 15, Queen Anne's-gate, S.W.1. All sub-contracts have been let.

Hammersmith.—BUILDING.—A new contract has recently been entered into by Messrs. J. McManus of 237, Hammersmith-road, W.6. The contract is for the demolishing of the old building and erecting a new block of premises in Hammersmith Bridge-road, for Messrs. Palmer's Stores (1903), Ltd. The architects for the work are Messrs. J. S. Quilter & Son, 3, St. James's-street, S.W.1. The sub-contracts are all let.

BRISTOL EMPLOYERS AND HOUSING.

THE housing shortage was discussed at considerable length at a meeting of the heads of many of Bristol's most important industries, and as an outcome it has been decided to re-form the old Bristol Garden Suburbs Company under the name of Bristol Housing, Ltd., with a capital of £120,000.

The Lord Mayor presided, and said the suggestion was that those who had large businesses might feel inclined to help by putting part of their reserve fund into this undertaking. They would make sure of a dividend, and at the same time would be helping what was now a trouble to every right-thinking man. The chairman of the company since its incorporation, Mr. G. H. Oatley, had consented to act for a period of two years, if desired, while Mr. Frank N. Cowlin had agreed to act as managing director for two years from the date of the prospectus. Both were willing to act without any remuneration to help the situation.

Mr. F. N. Cowlin said a subsidy of £120 per house would be obtainable, and the houses could be built to show a return of five per cent. on the investments of the company. A capital of £120,000 would enable the company to build 300 houses, assuming that they sold none, on a rental basis of 11s. 6d. per week, on a cost of £425. They could be sold for about £450 each, and the purchaser could borrow 90 per cent. of the value, and by a payment of 10s. 1d. or 12s. 1d. per week, including ground rent, could own the house in 20 years, and be a property owner in the city, which would be a valuable asset to the city. He read a letter from the Imperial Tobacco Company offering to invest £50,000, and he said it seemed to him that the only way they could get on was for a company of business men to get together to take the place of the speculative builder. His own firm was prepared to subscribe £5,000 and assist the company in any way it could.

Promises of support were given by most of the heads or representatives of the firms present, and at the end of the meeting the Lord Mayor announced that £71,000 had definitely been promised.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/4½	1/3½	1/3½	1/4½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 783.)

THE SCOTTISH BUILDER

NEW METHODS OF BUILDING.

AT the opening of the session of the Royal Technical College Architectural Craftsmen's Society, Glasgow, a paper was read by Mr. James Houston, A.R.I.B.A., on "New Methods of Building."

Local conditions, he said, governed to a great extent the construction which should be used in various districts. For instance, in a mining area the best method to adopt was the steel frame structure, veneered with stone, bricks, concrete, or cement reinforced with expanded metal. In this type of construction a reinforced concrete raft was laid over the whole site and the steel framework erected upon it. The roof might also be of concrete by arranging inverted rolled steel tees on the steel roof principals, placed about 2 ft. 6 in. centres, and between the tees placing precast concrete slabs 2½ in. in thickness, thus eliminating almost entirely the use of timber in the roof.

In fact, it was possible to do without timber by using expanded metal lathing to support the plaster. A roof of this kind was very successful for garages and fireproof buildings, and very speedy and economical in building. In days gone by it was the usual practice, when erecting a concrete roof, to prepare an elaborate system of timber centering with a forest of timber underneath to support the concrete while it was wet; and for a period of 14 days or thereabouts, to give the concrete ample time to set, other tradesmen were greatly hampered, and the progress of the work very seriously delayed until the timber centering was removed.

Steel and concrete was successfully used in Kilbirnie, and the advantage of a roof of this kind for fireproof construction must be perfectly clear to the thinking man. The slabs might be jointed in bitumen instead of cement, which would give a certain amount of elasticity to the roof for expansion and contraction, thus overcoming one of the greatest difficulties of a roof made of solid concrete, which had no elasticity and would crack before it would yield. The outer surface of the roof might then be treated with bituminastic solution of various colours, or, if the slabs were made of breeze, might even be covered with slates, tiles, or any other material to suit the amenity of the district in which the house might be built. It might be thought that this was an expensive system, but it was actually as cheap as any other.

Certain estates laid down definite rules as to the nature of the buildings to be erected to uphold the amenity of these areas, and this was often a great barrier to the progress of building, on account of the high cost if stonework were demanded. In this connection a description of a system now being used to overcome this might be of interest. With this system pulverised stone, reduced to the fineness of sand, from any desired quarry, either red or white, could be applied in a plastic state to the concrete blocks while they were wet, thus ensuring perfect cohesion of the surface treatment with the concrete backing. The result of this method was that the block had the appearance of the real stone, since it actually showed the silica, alumina, the glittering parts of mica, etc., and could thus almost stand a microscopic test for sandstone. With the use of this material, arches, carvings, etc., and indeed any type of work which could be done in stone, could be made at a cost of 50 per cent. less than real stone.

In America perhaps one of the most interesting new methods of construction was that in which the walls were formed on the ground, lying on the flat, hinged at the base, and then raised to the perpendicular by means of winches. The expense and danger involved, however, did not justify the result. The late T. L. Watson, at one time a director of that College, improved on that system by forming the walls also on the horizontal, but hinged along the centre of gravity of the walls, and in that way deleted entirely the use of machinery.*

The underlying principle was the discarding of moulds or blocks in wall construction. The walls of the house were formed on horizontal platforms a few feet above the ground, and hinged as nearly as possible along the centre of gravity, so that when the concrete had set each wall was turned over on its hinges into the exact position. As the platform in its horizontal position balanced in the middle, due allowance being made for door and window openings, it followed that the lower half of the wall, in descending, automatically raised the upper half. No force was required and no apparatus employed (other than rope). The platform was adjusted to its vertical position before the concrete was applied, and the wall naturally assumed its destined place with accuracy.

The door and window frames were laid down on the platform before the concrete was filled in, so that the house was then ready for its roof and internal finishings. The platforms were formed of the roof spars and boarding, and the greater part of the material was, therefore, on the site and ready for use. The time taken to erect the four walls after the concrete had set was only one and a half hours.

Another patent system of some interest was one devised by Principal A. P. Laurie, of Heriot-Watt College, Edinburgh, in which breeze slabs are used for the inner part of the hollow wall in lieu of brick. The most interesting part of the system is the use of breeze bricks steeped in tar.

It was interesting to note that the mud hut of their prehistoric forefathers had blossomed into the pisé-de-terre dwelling of to-day. It was hardly creditable that a building made of mud could take its place with dignity amongst the modern perfectly equipped dwellings demanded by the present generation, but such was the case. Pisé-de-terre was dry earth thrown between shuttering, and rammed until consolidated. The shuttering used was 10 ft. long and 2 ft. 9 in. high, 9 in. of which, however, overlapped the completed course, so that 2 ft. was added to the wall at each operation. The same shuttering was then removed from the finished course and raised into position to take the next layer above. Red marl was the best soil for pisé building, but, with the exception of clay, almost any earth would do, providing it was free from vegetable matter. Clay and sand were unsuitable.

The next best earth to use was brick earth, or clay that had been well-weathered, broken up, and exposed to the wind and frost.

The humble dwelling of pisé-de-terre, or the modest concrete cottage, were commendable efforts to solve the problem of housing the poor, and many beautiful results had been obtained, but some people looked upon these with contumely.

The modest concrete cottage did not appeal to them, but it must be accepted that concrete for home building was particularly suitable for the low-cost house. For the structure which was built with hard-earned savings, and where economy must be practised, but where permanence, beauty and safety from fire were essential, concrete offered more for the money spent than any other material. The best type of plan for the concrete house was that which was the most simple and compact, and novel types would invariably be found more expensive than a straightforward arrangement.

There was another system whereby buildings

*Illustrated and described in *The Builder*.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½
Galashiels	1/5	1/5	1/6	1/6	1/5	1/5	1/5½	1/1
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 782.

which gave one an impression of being in a ruinous and dilapidated state could now, at small cost, assume the massive rusticated appearance of the Palazzo Riccardi. For several years a builder in the north of Scotland had been performing these transformations in his native town. The whole secret lay in the use of cement panels, the average size of which was 16 in. by 8 in. by 1 in. in thickness. Their composition was two of sand to one of Portland cement. They were easily handled, easily packed for transport, and had stood the test of the rigorous climate of the north. The cost of this "clothing," whether for an old wall or for a new timber frame building, or for a completely fireproof steel-framed structure, was trifling indeed, and many an old building of comparatively little value to the proprietor, an eyesore to the community, might be greatly improved in appearance.

In summing up, he assured them that, whilst much thought had been given, perhaps too much, to patent systems of construction, yet, for the present at any rate, he had formed the impression that for domestic work the 12 in. hollow brick wall built in cement mortar was difficult to beat either for efficiency or economy. It would be a great pleasure to all there, he was sure, if they could return once more to the development of good Scottish masonry, where their craftsmen could have a chance to exhibit their skill, but, just as the written language of modern times had overpowered the native speech of older Scotland, the architecture of modern times had so overpowered the native style that one rarely saw any new work bearing traces of real Scottish feeling. The tide of education was advancing so rapidly that the people must respond to the new environment, and the new conditions resulting from the war had imposed on them the duty of erecting comfortable homes for the people at a price within the reach of all.

Chesham House, Regent Street.

Messrs. Thomas Faldo & Co., Ltd., of Windsor House, Kingsway, W.C.2, inform us that they have been appointed sub-contractors for the whole of the asphalte work involved in this building, which was illustrated in our last issue.

NEW BUILDINGS IN SCOTLAND.

Kirkcudbright.—ACADEMY.—It is proposed to reconstruct the Academy at Kirkcudbright at an estimated cost of £10,000.

Greenock.—CATTLE MARKET.—The Dean of Guild Court has granted the Greenock Harbour Trust permission to reconstruct the cattle auction mart in Laird-street. The mart was destroyed by fire some time ago.

Aberdeen.—HOUSES, &C.—The Corporation Plans Committee has passed plans as follows:—House at Hammersmith-road, for Mr. W. Grant; a house, Broomhill-avenue, for Mrs. Third; two houses at Ashley-gardens, for D. & J. R. M'Millan; two houses at Ashley-road, for James Philip and John Rodger; bungalow at Queen's-road, for Mr. John A. Cook, Ellon; bungalow, Anderson-drive, for Mr. James B. Gray; alterations to the hall of the Woodside Parish Church, and a meeting hall in St. Nicholas-street, for the East Parish Church. The Committee passed plans for the erection and alterations of buildings to the value of £6,550 in all.

Perth.—FACTORY.—The T.C. has been recommended to approve of plans for a new bacon factory near the harbour.

Irvine.—HOUSES.—The Board of Health has granted permission for the erection of 20 two-apartment houses under the new housing and slum area clearance scheme. A site for the proposed new houses has not been definitely fixed.

Lockerbie.—HOUSING.—The T.C. has forwarded plans of a new housing scheme to the Board of Health for their approval. The scheme has been prepared by Mr. David M'Jerrow, the Town Clerk.

Glasgow.—HOUSES.—The Housing Committee has promised the Board of Health that it will endeavour to erect, within the two years allowed by the Act, 5,000 houses, tenders for 2,400 of which are either already in the hands of the Committee or are being asked for. The Committee seeks authority to acquire part of the lands of Garscadden estate, adjoining the Bankhead-Knightswood housing scheme, and enable the main roads and main drainage to be carried out.

LAND FOR SCHOOL EXTENSION

MR. HOWARD MARTIN, Official Arbitrator, sitting at 5, Old Palace-yard, Westminster, heard a claim by Mr. Simon Green against the Chiswick Urban District Council concerning the Council's compulsory acquisition of a piece of land, approximately 860 square yards, at the rear of Nos. 342 to 348B (even), High-road, Chiswick, for the purpose of the extension of Belmont Schools. Mr. S. A. Wilde (of Messrs. Farebrother, Ellis & Co., auctioneers and surveyors, of Fleet-street, E.C.), giving evidence for the claimant, submitted a valuation of £2,543, based on the assumption that School-road would be continued, and that there would be only a nominal apportionment of rent under an existing lease. Mr. G. S. Wain, District Valuer for West Middlesex, on behalf of the Urban Council, detailed a valuation of £900.

The award is as follows: "That the acquiring authority is to pay the claimant the sum of £1,446 as compensation, it being agreed that the rent reserved under the existing lease is not to be apportioned, and that the acquiring authority is to extend the School-road across the land to be acquired so as to give the remaining land of the claimant a frontage to the south side of the extension, the extension to be made and maintained at the expense of the acquiring authority, and I order the acquiring authority to pay the stamp duty and contribute £31 10s. towards the costs of the claimant."

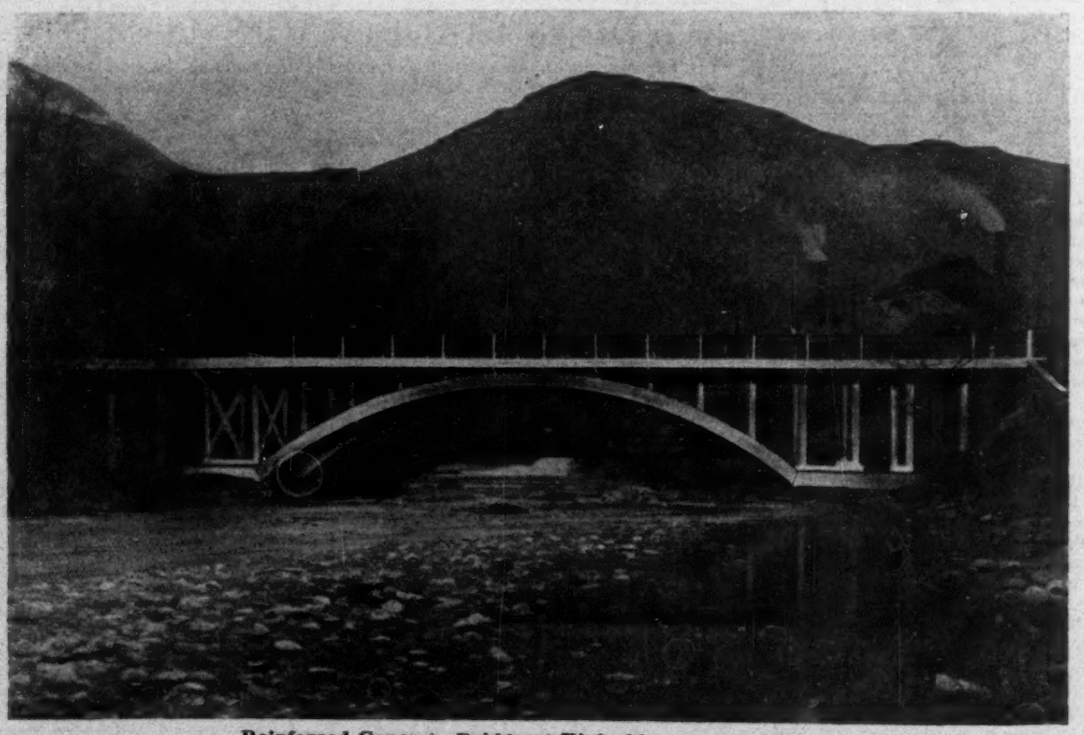
Municipal Elections.

Alderman J. Cook Rees, in 1917 President of South Wales Institute of Architects, has been appointed Mayor of Neath.

Newport (Mon.) Borough Council has appointed Mr. Charles F. Williams, retired builder, Mayor for the ensuing twelve months.

Councillor Evan Hopkins (Messrs. John Hopkins & Son, builders) has been elected Mayor of Cowbridge.

The re-elected Mayor of Monmouth is Councillor A. H. Williams, builder and contractor.



Reinforced Concrete Bridge at Kinlochleven, Argyllshire.

[Total length, 180 ft. Span of arch, 100 ft. Designed by MESSRS. MOUCHEL & PARTNERS.]

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

NOVEMBER 17.—**Aberavon.**—EXTENSIONS.—For extensions to the Elim C.M. Hall, Velindre, Aberavon, for the trustees. The proposed new wing measures about 45 ft. by 26 ft., with vestries, &c., in addition. Messrs. Thomas & Morgan & Partners, Architects, 24, Gelliwasted-road, Pontypridd.

NOVEMBER 17.—**Ayr.**—BUILDINGS.—For buildings to be erected at Springvale-place, Saltcoats, for the Weights and Measures Dept. of the County of Ayr. Mr. Hugh Thomson, architect, 60, Hamilton-street, Saltcoats. Deposit £1.

NOVEMBER 17.—**Cwmtaff (Breconshire).**—HOUSES.—For erection of a pair of semi-detached houses at Cwmtaff (Breconshire) for the Cardiff Waterworks Committee. Mr. C. H. Priestley, M.Inst.C.E., City Hall, Cardiff. Deposit £2 2s.

NOVEMBER 17.—**Ebbw Vale.**—PAINTING.—For painting the interior and exterior of the Ebbw Vale Council public offices. District wage conditions. Mr. P. I. Davies, Surveyor, Council Offices, Ebbw Vale.

NOVEMBER 17.—**Edinburgh.**—LAVATORY.—Erection of a public lavatory for women at Tollcross, for the T.C. Mr. A. Horsburgh Campbell, Burgh Engineer, 329, High-street, Edinburgh.

NOVEMBER 17.—**Felling.**—HOUSES.—Erection of 24 houses (which may be increased to 50), for the U.D.C. Mr. C. W. Hall, Architect, Council Buildings, Felling.

NOVEMBER 17.—**Inverness.**—HOUSES.—Erection of two blocks of four-roomed houses at Lochalsh-road, Inverness, and painter and glazier work in connection with the erection of three blocks of three-roomed houses on the same site. Mr. J. Hinton Gall, architect, Lombard-street, Inverness.

NOVEMBER 17.—**Llanedy.**—SCHOOL.—For erection of school to accommodate 100 children at Llanedy, Pontardulais, for the Carmarthenshire Education Authority. Date given is not last date of tender, but date by which names and addresses of prospective tenderers must be sent to Mr. W. Vincent Morgan, County Architect, County Offices, Carmarthen.

NOVEMBER 17.—**Manchester.**—X-RAY ROOM.—Erection of an X-ray room at Baguley Sanatorium, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

NOVEMBER 17.—**Saltcoats.**—BUILDINGS.—Buildings to be erected at Springvale-place, Saltcoats, for the Weights and Measures Department of the County of Ayr. All particulars from Mr. H. Thomas, architect, 60, Hamilton-street, Saltcoats. Deposit £1.

NOVEMBER 19.—**Barnes.**—HOUSES.—Proposals for the erection of about 76 houses at Mortlake wanted from builders. Council's Surveyor, High-street, Mortlake.

NOVEMBER 19.—**Blackburn.**—PAVILION.—Erection of a pavilion at Rockville Recreation Ground, for the T.C. Mr. A. T. Gooseman, Borough Engineer, Town Hall Blackburn.

NOVEMBER 19.—**Bristol.**—FOUNDATIONS.—Construction of foundations for water-screening plant at Feeder-road Power Station, for the T.C. Mr. H. Faraday Proctor, Chief Engineer, The Exchange, Corn-street, Bristol. Deposit £2 2s.

NOVEMBER 19.—**Carlisle.**—PAINTING.—For painting in covered markets, parks, &c., for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

NOVEMBER 19.—**Colchester.**—HOUSES.—Erection of block of six houses on Harwich-road site, and block of four houses on Defoe-crescent site, for the T.C. Mr. H. Collins, Borough Surveyor, Colchester.

NOVEMBER 19.—**Derby.**—SHED.—For extension to car shed, Nottingham-road, for the T.C. Mr. C. A. Clews, Borough Surveyor, Babington-lane, Derby. Deposit £1 1s.

NOVEMBER 19.—**Heads Nook.**—HALL.—Erection of a village hall at Heads Nook. Messrs. Higginson & Slack, architects, Lowther-street, Carlisle.

NOVEMBER 19.—**Hull.**—PAINTING.—For internal painting at Guildhall and external painting of certain properties, for the T.C. City Architect, Guildhall, Hull.

NOVEMBER 19.—**Kirkcaldy.**—WAR MEMORIAL.—For erection of memorial and laying-out of site. Messrs. Heaton & McKay, architects, 72, George-street, Perth. Deposit £1 1s.

NOVEMBER 19.—**London, S.W.18.**—HOUSES.—Erection of 52 houses on three selected sites on the Southfields Housing Estate, for the Wandsworth Borough Council. Mr. G. Leonard Elkington, A.R.I.B.A., Council's Architect, 7, Laurence Pountney-hill, E.C.4.

NOVEMBER 19.—**Lytham St. Annes.**—EXTENSION.—Extension of the Ashton Pavilion, for the T.C. Borough Surveyor, Town Hall, St. Annes-on-the-Sea.

NOVEMBER 19.—**Plymouth.**—REPAIRS.—For repairs to premises at 49, Julian-street, for the T.C. Medical Officer of Health's (Housing) Department, Town Hall, Stonehouse, Plymouth.

NOVEMBER 19.—**Scarborough.**—HOUSES.—Erection of ten pairs of semi-detached and one block of four houses in Scamer-road and Hinderwell-road, for the T.C. of Scarborough. Mr. S. H. Poole, P.A.S.I., Housing Superintendent, Town Hall, Scarborough.

NOVEMBER 19.—**Southend-on-Sea, Essex.**—COURT HOUSE.—Erection and completion of a court house and work incidental thereto at Central Police Station, Alexandra-street, for the Corporation of the County Borough of Southend-on-Sea. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2 2s.

NOVEMBER 20.—**Bradford.**—COLOURING.—For colouring, &c., required to be done at the various schools, for the T.C. City Architect, Town Hall, Bradford.

NOVEMBER 20.—**Liverpool.**—ADDITIONS, &C.—(1) Additions to Council School, Larkhill Estate; and (2) rebuilding portion of Domestic Science Centre, Granby-street Council School. Land Steward and Surveyor (Architectural Dept.), Municipal Buildings, Liverpool. Deposit £2 2s.

NOVEMBER 20.—**London, N.W.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Mill Hill, N.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 20.—**Manchester.**—PAINTING.—For painting interior of the Victoria Arcade, Victoria Buildings, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

NOVEMBER 20.—**Portsmouth.**—SHELTERS.—Erection of tramway shelters on different sites, for the T.C. Mr. V. G. Liorni, Tramways Engineer, Portsmouth. Deposit £2 2s.

NOVEMBER 20.—**Tottenham.**—PAINTING.—For painting of the external woodwork of cottages on the White Hart-lane Estate, Tottenham, for the U.D.C. Surveyor, Town Hall, Tottenham.

NOVEMBER 20.—**Tyldesley.**—HOUSES.—The erection of 32 houses for the U.D.C. Mr. F. E. Jones, Housing Architect, Council Offices, Tyldesley. Deposit £2 2s.

NOVEMBER 20.—**Woolwich.**—ALTERATIONS.—For stage alterations at Woolwich Town Social Club, Mount Pleasant, Plumstead, S.E.18. Secretary at the Club.

NOVEMBER 21.—**Dewsbury.**—HOUSE.—Erection of a detached residence off Wakefield-road, Dewsbury. Messrs. Firth, Son, & Blackburn, architects, 22, Wellington-road, Dewsbury.

✱NOVEMBER 21.—**Woolwich.**—REPAIRS, &C.—For works of repair, painting, &c., at the Dispensary, 99, Rectory-place, for the Board of Guardians. Mr. Arthur Holder, Clerk, 99, Rectory-place, Woolwich, S.E.18.

✱NOVEMBER 22.—**Dover.**—HOUSING, &C., ACT, 1923, BOROUGH OF DOVER, ROPEWALK.—(1) Erection of houses: Erection of 23 houses (21 type "A," and 2 type "C"), at the Ropewalk Meadow. Mr. A. T. Miller, architect, 16, Castle-street, Dover. Deposit £1 1s. (2) Road, Sewers and Water Main: Construction of a road, sewers and laying of a water main and other incidental work in connection with the above scheme. Borough Engineer, Maison Dieu House, Dover. Deposit £1 1s.

NOVEMBER 22.—**Hull.**—SCHOOL.—Erection of first portion, Dairycoates School, Hessle-road, for the T.C. Mr. Joseph H. Hirst, City Architect, Guildhall, Hull. Deposit £2 2s.

NOVEMBER 22.—**Liverpool.**—SWITCH HOUSE.—Erection of new high-tension switch house, Garston Old-road, for the T.C. Land Steward and Surveyor's Department, Municipal Offices.

NOVEMBER 22.—**Silsden.**—WAREHOUSE.—For rebuilding four-story warehouse. Mr. J. Hartley, architect, Skipton.

NOVEMBER 22.—**Southend-on-Sea.**—PAINT SHOP.—Erection of a paint shop for tramway cars at the London-road Depot, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

NOVEMBER 22.—**Stockton.**—PAINTING.—For painting and decorating the Male Hospital at Portrack Lodge Institution, for the B.G. Mr. T. W. T. Richardson, architect, 57, High-street, Stockton-on-Tees.

NOVEMBER 22.—**Yorks.**—TELEPHONE EXCHANGE.—Erection of a post office and telephone exchange at Shipley, Yorks, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 23.—**Aberystwyth.**—HOUSES.—Erection of seven houses on a site at Glanrafon-terrace, Trefechan, within the Borough of Aberystwyth, for the Corporation. Borough Surveyor's Office, Smithfield-road, Aberystwyth. Deposit £1 1s.

NOVEMBER 23.—**Bristol.**—HOUSES.—For erection of 40 houses on the Fishponds Housing site, for the T.C. City Engineer, Housing Department, 51, Prince-street, Bristol. Deposit £1.

NOVEMBER 23.—**Eastbourne.**—BATHING CHALETS.—Erection of 36 bathing chalets for the T.C. Mr. L. Roseveare, Borough Engineer, Eastbourne.

NOVEMBER 23.—**Liverpool.**—ADDITIONS.—For new married quarters and forecourt to same, Old Swan Fire Station, for the T.C. Land Steward and Surveyor (Architectural Department), Municipal Buildings, Liverpool. Deposit £1 1s.

NOVEMBER 23.—**Sheffield.**—GLAZIERS' WORK, &C.—For plumbers' and glaziers' work required for general repairs during the year 1924, for the E.C. Education Committee, Leopold-street, Sheffield.

NOVEMBER 23.—**York.**—HOUSES.—Erection of one block of three houses at Newton-upon-Ouse, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

NOVEMBER 24.—**Dorchester.**—REPAIRS, &C.—(1) Repairs to roofs at 21, North-square; (2) painting and repairs to dressing-rooms at Corn Exchange, for the T.C. Mr. H. D. Strange, Borough Surveyor, 21, North-square, Dorchester.

NOVEMBER 24.—**Huddersfield.**—HOUSES.—Erection of 24 houses (in six blocks of four houses each), in Hanging-Stone-road, Berry Brow, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield.

NOVEMBER 24.—**Lyminge.**—REPAIRS.—For repairs and painting to pair of cottages and farm buildings at Valley Farm, Lyminge, for the Kent C.C. Mr. P. W. Cox, Chief Agricultural Officer, Sessions House, Maidstone.

NOVEMBER 24.—**Middlesex.**—HOUSES.—Erection of 32 houses near the Ride, Boston-road, Brentford, for the Middlesex County Council. County Engineer, Middlesex Guildhall, Westminster, S.W.1. Deposit £2 2s.

NOVEMBER 26.—**Hove.**—PAINTING.—For colouring and painting portions of the interior of the Town Hall. Borough Surveyor, Town Hall, Hove.

NOVEMBER 26.—**Woking.**—ALTERATIONS.—For alterations and additions to the Pavilion at the Recreation Ground, for the U.D.C. Mr G. J. Wooldridge, Surveyor, Council Offices, Woking.

NOVEMBER 27.—**Glasgow.**—HOUSES.—Erection of 200 houses at Merryflats, Govan, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

NOVEMBER 27.—**Ilford.**—MATERNITY HOME AND MEDICAL OFFICER'S RESIDENCE.—Erection and completion of the following buildings at Hatch-lane, Ilford, for the Ilford U.D.C.: (1) Maternity home; (2) medical officer's residence. Mr. H. Shaw, M.Inst. C.E., Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit £5 5s.

NOVEMBER 27.—**Lurgan.**—HOUSES.—Erection of 22 cottages in the rural district of Lurgan, for the Government of Northern Ireland. Mr. W. D. Scott, Assistant Secretary, Ministry of Finance, 15, Donegall-square West, Belfast. Deposit £1.

NOVEMBER 27.—**Truro.**—ADDITIONS.—For additions and alterations to 14, High Cross, Truro. Mr. Alfred J. Cornelius, architect, Truro.

NOVEMBER 28.—**Harrogate.**—PAINTING.—For painting, &c., at Royal Bath Hospital and Rawson Convalescent Home. Mr. E. P. L. Dixon, secretary, Harrogate.

NOVEMBER 30.—**London, S.W.**—TELEPHONE EXCHANGE.—Erection of Sloane new telephone exchange, Scolding-street, S.W., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit one guinea (payable to the Secretary).

NOVEMBER 30.—Singapore.—POST OFFICE.—Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.

DECEMBER 1.—**Adisham.**—RE-SHINGLING.—For the re-shingling of Adisham Church tower. Mr. T. F. W. Grant, 11, Buckingham-street, Adelphi, W.C.2.

✱DECEMBER 3.—**Barnet, N.**—HOUSES.—Erection of 23 houses and contingent work on land adjoining May's-lane and May's-lane-road, for the Barnet U.D.C. Mr. W. B. Chancellor, Engineer and Surveyor, Council Offices, Barnet.

DECEMBER 3.—**Leominster.**—HOUSES.—Construction of 10 parlour-type and 10 non-parlour-type houses, for the T.C. Mr. James Budd, Borough Surveyor, Town Hall, Leominster.

✱DECEMBER 4.—**Bodmin.**—NEW POST OFFICE.—Erection of a new post office at Bodmin, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s (payable to the Secretary).

✱DECEMBER 5.—**Brighton.**—HOUSES.—Erection of 87 houses on a portion of the Queen's Park Housing Site, for the County Borough of Brighton. Either member of the Panel of Architects: Messrs. Clayton & Black, 10, Prince Albert-street; Messrs. T. Garrett & Son, 34, Ship-street; Mr. E. Wallis Long, 56, East-street; Mr. W. H. Overton, 22, Ship-street. Deposit £1.

✱DECEMBER 18.—**Hackney, E.8.**—BUILDING WORKS.—Building works, being extension and completion of the electricity sub-station at Dalston-lane, Hackney, for the Metropolitan Borough of Hackney. Borough Electrical Engineer, 306, Mare-street, Hackney, E.8, on and after November 26. Deposit £1 1s.

✱DECEMBER 19.—**Featherstone.**—HOUSES.—Erection of 20 houses at Little-lane, Purston, near Pontefract, for the Featherstone U.D.C. Mr. Samuel Chesney, A.R.I.B.A., Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

DECEMBER 19.—**Hawksworth.**—FARMHOUSE, &C.—(*a*) Farmhouse and buildings at Lane Side Farm, Hawksworth; (*b*) alterations and repairs to existing farm buildings at Lane Side Farm, Hawksworth, for the West Riding Small Holdings' Committee. Land Agent, County Hall, Wakefield. Deposit £1.

NO DATE.—**Grantham.**—ALTERATIONS.—For alterations and additions to Finkin-street Wesleyan Church, Grantham. Mr. A. E. Lambert, architect, 28, Park-row, Nottingham. Deposit £2 2s.

✱NO DATE.—**Higher Openshaw.**—MISSION HALL.—Building Baptist Mission Hall at Higher Openshaw. Mr. J. A. North, 46, Toxteth-street, Higher Openshaw, Manchester.

FURNITURE, MATERIALS, etc.

NOVEMBER 17.—**Bootle.**—MATERIALS.—Supply of granite setts, channels, concrete flags, cement, &c., to the T.C. Borough Engineer, Town Hall, Bootle.

NOVEMBER 17.—**Lewes.**—MATERIALS.—Supply of granite, tarred macadam and tar to the East Sussex C.C. Mr. F. J. Wood, County Surveyor, County Hall, Lewes.

NOVEMBER 17.—**Tredegar.**—SUPPLIES.—For supply to U.D.C. for its various departments of (1) 50 cloth overcoats, 50 pairs of leather leggings, 50 oilskin coats and overalls; and (2) 100 cloth overcoats, 100 pairs of leather leggings, and 100 oilskin coats and overalls. Mr. J. T. Phillips, Clerk to the Council, Bedwellty House, Tredegar.

NOVEMBER 19.—**Bradford.**—STORES.—Supply of stores to Bradford Corporation Tramways. Mr. R. H. Wilkinson, General Manager, 7, Hall Ings, Bradford.

NOVEMBER 19.—**Chichester.**—MATERIALS.—Supply of road materials to the West Sussex C.C. Mr. H. W. Bowen, County Surveyor, Southgate House, Chichester.

NOVEMBER 19.—**Chichester.**—TAR.—Supply of about 200,000 gallons of tar to the West Sussex C.C. Mr. H. W. Bowen, County Surveyor, Southgate House, Chichester.

NOVEMBER 19.—**Dublin.**—STORES.—Supply of stores for six months to the Dublin United Tramways Co. Offices, 59, Upper Sackville-street, Dublin.

NOVEMBER 19.—**Rhondda.**—TARRED SLAG MACADAM.—For supply to the Rhondda U.D.C. of 1,000 tons of tarred slag macadam in various gauges of 2½, 1½ and ¾ ins. Material to be delivered to G.W.R. Stations at Porth, Trealaw, Ystrad, Tylorstown, and Ferndale. Mr. E. Taylor, Surveyor, Council Offices, Pentre (Rhondda).

NOVEMBER 20.—**Glasgow.**—MATERIALS.—Supply of materials, for six months, to the Tramways Department. Mr. James Dalrymple, General Manager, 46, Bath-street, Glasgow.

NOVEMBER 20.—**Islington.**—MATERIALS.—Supply of (*a*) 650 tons of granite or slag macadam; and (*b*) castings and other ironwork, to the B.C. Borough Engineer, Municipal Offices, Islington.

NOVEMBER 20.—**Warrington.**—STORES.—Supply of stores for twelve months to the Cheshire Lines Committee. Stores Superintendent, Cheshire Lines, Warrington.

NOVEMBER 20.—**Wealdstone.**—ROAD MATERIALS.—Supply of 1,000 tons of 2 in. bituminous granite for bottoming; 150 tons of ½ in. bituminous granite topping; and 50 tons of ¼ in. granite or limestone chippings, to the U.D.C. Mr. H. Walker, Surveyor, Wealdstone.

NOVEMBER 21.—**Dublin.**—NOTICE PLATES.—Supply to the Office of Public Works post office notice plates. Mr. J. J. Healey, Secretary, Dublin.

NOVEMBER 21.—**London.**—FIRE APPLIANCES.—Supply to H.M. Works Commissioners of fire and sand pails, and smothering cloth tubes, &c. Controller of Supplies, H.M. Office of Works, &c., King Charles-street, S.W.1.

NOVEMBER 22.—**Newcastle-on-Tyne.**—STORES.—Supply of stores to the Tyne Improvement Commission for six or twelve months. Mr. A. Blacklock, Secretary, Bewick-street, Newcastle-on-Tyne.

NOVEMBER 23.—**Liverpool.**—MATERIALS.—Supply of tramway material to the T.C. City Engineer, Municipal Buildings, Liverpool.

NOVEMBER 23.—**Swindon.**—MATERIALS.—Supply of oils and turpentine, electrical wire and cable, &c., to the G.W.R. Co. Stores Supt., Swindon.

NOVEMBER 26.—**Barnet.**—MATERIALS.—Supply of flints, hoggin, ballast, sand, granite chippings, &c., to the U.D.C. Mr. F. P. Kindell, Surveyor, Council Offices, Friern Barnet-road, N.

NOVEMBER 28.—**Glamorgan.**—FURNITURE.—For supply of bedding and furniture for the use of the Glamorgan Constabulary, to the Glamorgan Standing Joint Committee. Office of the Chief Constable, Canton, Cardiff.

ENGINEERING, IRON AND STEEL.

NOVEMBER 17.—**Annaghkilly.**—BRIDGE.—Reconstruction of a steel viaduct at Annaghkilly, between Newbliss and Clones, for the Great Northern Railway (Ireland). Mr. J. B. Stephens, Secretary, Amiens-street Station, Dublin. Deposit £2 2s.

NOVEMBER 17.—**Brynamman.**—DRIVAGE.—For constructing a drift to cross measure dip head. Length, 140 yds.; width, 9 ft. in arms; collars, 6 ft. in arms; height, 6½ ft. from top of sleeper. Gradient, 9 in. per yd. Manholes, 3 × 4 × 6ft. Work to be done for. Rhosamman Colliery Co., Ltd., to include all labour for rubbish clearing, &c. Compressed air and boring drills supplied by Company. Mr. R. E. Rees, Manager, Rhosamman Colliery, Brynamman.

NOVEMBER 19.—**Belfast.**—PIPING.—Supply of steam, water and other piping at the Harbour Power Station, for the T.C. City Electrical Engineer, Belfast. Deposit £2 2s.

NOVEMBER 19.—**Bristol.**—ROOF TRUSSES, &C.—(1) Provision and fixing of five mild steel roof trusses to kitchen at Stapleton Institution; and (2) provision and fixing of galvanised wire guards to four fire escape staircases at Stapleton Institution, for the B.G. Mr. Thos. S. Lamb, Clerk, St. Peter's Hospital, Bristol.

NOVEMBER 19.—**Bristol.**—WIRING.—Re-wiring for electric lighting of Liverpool Shed, The Grove, Bristol, for the Docks Committee. Mr. T. A. Peace, Chief Engineer, Port of Bristol. Deposit £2.

NOVEMBER 19.—**Hastings.**—RESERVOIR.—For enlarging Ecclesbourne Reservoir, for the U.D.C. Mr. P. H. Palmer, Borough Engineer, Town Hall, Hastings. Deposit £2.

NOVEMBER 19.—**Havant.**—ELECTRIC LIGHT.—For electric lighting installation at Hospital of the Havant Joint Hospital District Board. Particulars at Hospital.

NOVEMBER 20.—**Burnham-on-Crouch.**—CONCRETE TANK.—Construction of a covered reinforced concrete sedimentation tank (of about 15,000 gallon capacity), for the U.D.C. Mr. E. Dilliway, Clerk, Council Offices, Burnham-on-Crouch. Deposit £1.

NOVEMBER 20.—**France and Belgium.**—HEADSTONES.—Total supply of 25,000 headstones, packed and delivered *f.o.r.*, to be divided into a number of contracts, none of which shall be for less than 100 headstones, for the Imperial War Graves Commission. The Secretary, Works Dept., Imperial War Graves Commission, 82, Baker-street, London, W.1, marked "Headstones Contract 5079/S.," "Headstones Contract 5079/T."

NOVEMBER 20.—**New Zealand.**—PLATE GIRDER SPANS.—For supply of plate girder spans for the Pihama and Opunake Section Bridges and Turapiro Bridge, for the Public Works Tender Board, Wellington. Department of Overseas Trade, 35, Old Queen-street, S.W.

NOVEMBER 20.—**Soyland.**—WATER PIPES.—Supply of about 210 yards of 4 in. cast iron water pipes and other specials, for the U.D.C. Mr. Holmes Hey, Water Inspector, Council Offices, Ripponden.

NOVEMBER 20.—**Wandsworth.**—GUARDS.—Providing and fixing 20 new wire guards to radiators at St. John's Hospital, for the B.G. Mr. F. J. Curtis, Clerk, Offices, St. John's-hill, Wandsworth, S.W.

NOVEMBER 21.—**Hurst.**—GATES.—Providing and fixing 406 lineal yards of wrought-iron gates, with cast-iron pillars. Mr. Samuel Shirt, Surveyor, Council Offices, Lower King-street, Hurst.

NOVEMBER 21.—**London.**—CRANES.—Supply to the East Indian Railway Co. of electric overhead travelling cranes. Mr. G. E. Lillie, Secretary, 73–76, King William-street, E.C.4. Charge £1 1s.

NOVEMBER 21.—**Manchester.**—ELECTRICAL PLANT.—For electrical drive for ammonia compressor, for the T.C. Mr. A. Chadwick, General Superintendent, Markets Department, Town Hall, Manchester.

NOVEMBER 21.—**Reigate.**—PUMPS.—Supply of electrically-driven drainage pumps, for the T.C. Mr. C. H. Wordingham, 7, Victoria-street, S.W. Deposit £1 1s.

NOVEMBER 21.—**Rhiw.**—PIER REPAIRS.—Repairs to the Pier at Rhiw, near Aberdaron, for the North Wales Iron and Manganese Co., Ltd. Mr. John Dunn, Irwell Chambers, Fazakerley-street, Liverpool.

NOVEMBER 21.—**Wallingford.**—WATER TOWER.—Erection of water tower in either iron or ferro-concrete, and steel tank of 70,000 gallons capacity, for the T.C. Manager, Waterworks, Wallingford.

NOVEMBER 21.—**Whitby.**—ELECTRIC LIGHTING.—For the installation of electric lighting at the new band pavilion and promenade extension at the Spa, West Cliff, for the U.D.C. Electrical Engineer, 45, Flowergate, Whitby. Deposit 5s.

NOVEMBER 22.—**Dungannon.**—PIPES.—Supply of water pipes to the R.D.C. Mr. William M'Guffin, Clerk, Workhouse Board-room, Dungannon.

NOVEMBER 22.—**Edinburgh.**—FENCING.—For supplying and erecting 137½ yds. of malleable iron fencing, 5 ft. high, for the T.C. Burgh Engineer, City Chambers, Edinburgh.

NOVEMBER 22.—**Kensington.**—WEIGHBRIDGE.—Construction of a new weighbridge of 20 tons capacity at wharf in Kensal-road, for the B.C. Borough Engineer, Town Hall, Kensington, W.8.

NOVEMBER 24.—**Plymouth.**—GAS PLANT.—Supply of new section of carburetted water gas plant, &c., to the T.C. Mr. W. P. Tervet, Manager, Gas Works, Keyham, Devonport. Deposit £2 2s.

NOVEMBER 26.—**Girvan.**—WATER WORKS.—Construction of a reservoir on the Penwhapple Burn, including embankment, outlet culvert, valve tower, waste weir, waste water channel, and meter house, for the T.C. Messrs. Warren & Stuart, 94, Hope-street, Glasgow. Deposit £2.

NOVEMBER 26.—**London.**—PUMPS.—For two centrifugal pumps, together with pipes, fittings, &c., for the Isle of Dogs Pumping Station, for the L.C.C. Chief Engineer, Old County Hall, Spring Gardens, S.W.1. Deposit £5.

NOVEMBER 27.—**Carlton.**—BRIDGE.—Construction of a steel girder road bridge of 150 ft. clear span, with abutments and two flood openings, over the River Aire at Carlton, near Snaith, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 27.—**Gravesend, Kent.**—HOT-WATER SUPPLY AND HEATING.—Hot-water supply to the wards of the Poor Law Institution, together with heating one part of the building, for the Guardians of the Parish of Gravesend. Particulars on personal application to Mr. Challinor, the Master of the Institution, at 10, Trafalgar-road, Gravesend, on the 14th, 16th, and 19th inst., between 10 and 4 o'clock each day.

✱NOVEMBER 27.—**Lambeth.**—ELECTRIC LIGHT AND FITTINGS.—Provision and installation of electric light wiring and fittings at the Lambeth Hospital, Brook-street, Kennington, S.E., for the Guardians of the Poor of the Parish of Lambeth. Clerk to the Guardians, Guardians' Board Room and Offices, Brook-street, Kennington-road, S.E.11, between the hours of 10 and 5 (Saturdays excepted). Deposit £2.

NOVEMBER 27.—**Willesden.**—ROLLER.—For one tandem type steam roller, for the U.D.C. Mr. F. Wilkinson, Engineer, Town Hall, Dyne-road, Kilburn.

NOVEMBER 28.—**Manchester.**—HEATING.—Providing and fixing a low-pressure heating apparatus at the Orford-street Municipal School, for the Education Offices, Deansgate, Manchester. Deposit £1 1s.

NOVEMBER 29.—**London.**—BRIDGES.—Supply of 14 girder bridges, 60 ft. clear deck spans, for the India Store Dept. Branch 10, Belvedere-road, S.E.

NOVEMBER 30.—**Grangemouth.**—WATER PIPES.—Supplying 820 tons of 12 in. diameter cast-iron pipes and specials, or alternatively, for supplying 1,411½ tons of 12 in. diameter cast-iron pipes and specials, to the T.C. Mr. David A. Donald, Water Engineer, Town Hall, Grangemouth.

NOVEMBER 30.—**Hemsworth.**—BRIDGE.—Reconstruction of Oldlake Bridge (8 ft. span), on the Doncaster and Selby main road, within the rural districts of Hemsworth and Pontefract, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 30.—**Newcastle-on-Tyne.**—CRANE.—For 20-ton hydraulic crane with accumulator and electrically-driven force pump, for the Tyne Improvement Commissioners. Mr. R. Aughton, General Manager, Bewick-street, Newcastle-upon-Tyne. Deposit £1.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

✱DECEMBER 1.—**London, W.10.**—ELECTRICAL WORK.—Electrical work required to be done at the St. Marylebone Hospital, Rackham-street, Notting Hill, W.10, in connection with the X-ray Department and Lecture Room for Nurse, for the St. Marylebone Board of Guardians. Messrs. Jarvis & Richard, architects, 60, Tufton-street, S.W.1, between the hours of 10 a.m. and 5 p.m. on November 13, 14 & 15. Deposit £1 Treasury Note.

DECEMBER 3.—**Sydney.**—SWITCHGEAR.—High tension switchgear, for Municipal Council. Department of Overseas Trade (Room 52), 35, Old Queen-street, S.W.1.

DECEMBER 6.—**St. Pancras.**—PUMP.—Supply of vertical electric motor-driven condensing water pump to deal with 750,000 gallons per hour, for the B.C. Electricity Dept., St. Pancras. Deposit £1.

DECEMBER 7.—**London.**—STEELWORK, &C.—(1) Steelwork for bridges, (2) cast-iron pipes and valves, for South Indian Railway Co. Offices, 91, Petty France, Westminster, S.W.1. Charge 5s. each.

✱DECEMBER 11.—**Temple Cloud, near Bristol.**—HEATING (HOT-WATER).—Installing, for the Clutton B.G. in their Institution, a system of hot-water heating and hot-water service, together with sundry other improvements. The Engineer, Clutton Union, Temple Cloud, near Bristol.

DECEMBER 20.—**South Africa.**—MATERIALS, &C.—Supply to the municipality of Graaf-Reinet of (*a*) cast-iron water-pipes, valves and fittings; (*b*) crude oil engines, generators and street equipment. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

DECEMBER 31.—**Kempton Park.**—ENGINES, &C.—Supply and erection of two reciprocating engines and pumps at Kempton Park Pumping Station, for the Metropolitan Water Board. Chief Engineer's Department, 173, Rosebery-avenue, Clerkenwell, E.C. Deposit £3 3s.

JANUARY 17, 1924.—**New Zealand.**—PIPES, &C.—Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

MAY 1, 1924.—**China.**—BRIDGE.—The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.

NO DATE.—**Lambeth.**—LAUNDRY PLANT.—Provision and installation of laundry plant at the Norwood School, for the B.G. Mr. James L. Goldspink, Clerk, Guardians' Offices Brook-street, Kennington, S.E.11.

ROAD, SANITARY, AND WATER WORKS.

NOVEMBER 17.—**Bootle.**—ROADS.—Reconstruction with granite setts on concrete of five roads, for the T.C. Borough Engineer, Town Hall, Bootle. Deposit £1 1s.

NOVEMBER 17.—**Chesterfield.**—WATER MAIN.—For laying 1,500 yards of 6 in. cast-iron water main at Ashover, for the R.D.C. Mr. Gilbert Frith, Water Works Engineer, Chesterfield. Deposit £1 1s.

NOVEMBER 17.—**Hayes.**—ROADS.—Making-up various streets, for the U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes, Middlesex. Deposit £2.

NOVEMBER 17.—**Southend-on-Sea.**—BOWLING GREEN.—Laying-out of land and the construction of bowling green, with boundary walls, fencing, &c., at Young's Nursery, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

NOVEMBER 17.—**Tilbury.**—ROADS.—Reconstruction in reinforced concrete of Montreal-road and part of St. Chads-road, for the U.D.C. Mr. S. A. Hill-Willis, Surveyor, Council Offices, Tilbury. Deposit £1.

NOVEMBER 19.—**Caerphilly.**—PRIVATE STREET WORKS.—For carrying out, for the U.D.C., the kerbing, paving, sewering, forming, metalling, &c., of Brynymynach-avenue and Brynview-avenue, Ystrad Mynach. Mr. T. H. Richards, Surveyor, Council Offices, Caerphilly. Deposit £1 1s.

NOVEMBER 19.—**East Preston.**—ROADS.—Execution of tar paving and other works at the Workhouse, East Preston, near Littlehampton, for the East Preston B.G. Mr. J. W. Calvert, Clerk, East-street, Littlehampton.

NOVEMBER 19.—**Edmonton.**—ROADS.—For making-up roads at the Edmonton Sewage Farm, for the U.D.C. Mr. Cuthbert Brown, Town Hall, Edmonton, N.9.

NOVEMBER 19.—**London, E.C.**—PAVING.—Repairing of the footways of London Bridge with York stone and the maintenance thereof for nine years, for the Corporation of the City of London. City Surveyor, Guildhall, E.C.2, between the hours of 10 a.m. and 4 p.m. Deposit £2 2s.

NOVEMBER 19.—**Maldon.**—ROADS.—For laying 160 yards super of stone slab paving and 80 yards lineal kerbing to footway in High-street, for the T.C. Borough Engineer, Municipal Offices, Maldon.

NOVEMBER 19.—**Poole.**—ROADS.—Making-up (*a*) 1,200 yds. of road to Banks-road; (*b*) part of Shore-road; and (*c*) forming sea wall at Sandbanks, for the T.C. Mr. S. J. Newman, Borough Surveyor, Poole. Deposit £2 each.

NOVEMBER 19.—**Southborough.**—WATER MAINS.—Provision and laying of about 1,550 yds. of 6 in. cast-iron water mains, for the U.D.C. Messrs. G. & F. W. Hodson, Engineers, Bank Chambers, Loughborough. Deposit £5 5s.

NOVEMBER 19.—**Tipton.**—SANITARY.—Conversion of privies in various wards, for the U.D.C. Mr. W. H. Jukes, Surveyor, Public Offices, Tipton. Deposit £2 2s.

NOVEMBER 19.—**Urmston.**—ROADS.—For improvement works in Victoria-street, for the U.D.C. Surveyor, Council Offices, Urmston. Deposit £1 1s.

NOVEMBER 19.—**Waltham.**—ROADS.—For the widening of Honey-lane, for the U.D.C. Mr. W. C. Holloway, Surveyor, Town Hall, Waltham Abbey.

NOVEMBER 20.—**Acton.**—ROADS, &C.—For making-up various roads, laying-out and levelling open spaces, painting railings, &c., for the U.D.C. Borough Surveyor, Municipal Offices, Acton.

NOVEMBER 20.—**Glasgow.**—ROADS.—Construction of a main road at Cardonald, 60 ft. wide and 1,300 yds. in length, for the T.C. Director of Housing, Govan Town Hall.

NOVEMBER 20.—**Lees.**—ROADS.—Making-up Turner-street, for the U.D.C. Mr. W. J. Lomax, 11, Fold-street, Bolton. Deposit £5.

NOVEMBER 20.—**Maesteg.**—ROAD WORKS.—For widening and reconstructing Llwydarth-road and Bethania-street, Maesteg, for the U.D.C., in connection with relief of unemployment. Unskilled labour to be employed. Mr. S. J. Harpur, Surveyor, Talbot-street, Maesteg. Deposit £2 2s.

NOVEMBER 20. — **Salford.** — ROADS. — For tar-macadamising the surface and completing Upper Park-road, and reconstructing the surface of Littleton-road with rock asphalte on concrete. Borough Engineer, Town Hall, Salford. Deposit £1 1s.

NOVEMBER 21.—**Aberkenfig (Glam).**—ROAD WORK.—For carrying out, for the Penybont R.D.C., the improvements proposed for the district roads between Park and main roads, Aberkenfig. Mr. C. Jenkins, Surveyor, 83, Nolton-street, Bridgend.

NOVEMBER 21.—**Birmingham.**—TRAMWAYS.—Construction of about 700 yds. of solid construction double track tramway, and about 3,000 yds. of wooden sleeper construction double track tramway, in Bristol-road, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £5.

NOVEMBER 21.—**Kinghorn.**—WATER MAINS.—For supplying and laying about three miles of cast-iron pipes, for the T.C. Messrs. Crouch & Hogg, C.E., 17, Lynedoch-street, Glasgow. Deposit £1 1s.

NOVEMBER 21.—**Morley.**—ROADS.—For paving of about 1,584 super yds. of carriageway with granite and Elland Edge setts, for the T.C. Mr. F. Turner, B.Sc., Borough Engineer, Town Hall, Morley. Deposit 10s.

NOVEMBER 21.—**Thornton.**—SEWERAGE WORKS.—For construction of sewerage works, for the U.D.C. Mr. H. Hindle, Engineer, 5, Cedar-street, Blackpool. Deposit £5 5s.

NOVEMBER 22. — **Windsor.** — SEWAGE DISPOSAL WORKS.—For construction of sewage disposal works at Sunninghill, for the R.D.C. Mr. J. H. Blizard, 7, Victoria-street, S.W. Deposit £10 10s.

NOVEMBER 23.—**Barking.**—ROADS.—For widening Longbridge-road and Ripple-road, for the U.D.C. Surveyor, Clock House Chambers, East-street, Barking.

NOVEMBER 23.—**Blean.**—SEWER.—Construction of about 471 yds. lineal of 9 in. stoneware pipe sewer, &c., in the parish of Reculver, for the R.D.C. Mr. F. A. Ward, Surveyor, Blean Institution, Herne Common, Herne Bay.

NOVEMBER 23.—**Hexham.**—SEWER.—For taking up the existing conduit sewer and laying new 6 in., 9 in. and 12 in. pipe sewers in the Parish of Corbridge, for the R.D.C. Clerk to the Parochial Committee, Corbridge-on-Tyne. Deposit £1.

NOVEMBER 23.—**Middleton.**—SEWER.—Construction of sewer for the T.C. Borough Engineer, Town Hall, Middleton.

NOVEMBER 23. — **Mitcham (Surrey).** — ROADS.—Making-up of certain roads on the Council's Housing Estates, for the Mitcham U.D.C. Mr. B. Bullock, Council's Surveyor, Broadway House, Lower Mitcham.

NOVEMBER 24.—**Morley.**—SANITARY.—For carrying out sanitary improvements at Bridge-street property, for the T.C. Mr. F. Turner, Borough Engineer, Morley.

NOVEMBER 26.—**Camberwell.**—ROADS.—Making-up Dovercourt-road, East Dulwich, for the B.C. Mr. William Bell, Borough Engineer, Town Hall, Peckham-road, Camberwell, S.E.5.

NOVEMBER 26.—**Driffield.**—WELL.—For the sinking of three boreholes, 150 ft. deep, and providing and fixing three borehole hand pumps, at Garton-on-the-Wolds, for the R.D.C. Mr. George Harker, 17, Exchange-street, Driffield.

NOVEMBER 26.—**Enfield.**—SEWAGE DISPOSAL WORKS.—Construction of sewage disposal works at Cuckoo Hall-lane, for the U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield. Deposit £5 5s.

NOVEMBER 26.—**Mitcham.**—ROADS.—For forming about 750 super yds. footways at Tamworth Recreation Ground, for the U.D.C. Messrs. Chart, Son & Reading, Surveyors, Croydon. Deposit 10s.

NOVEMBER 27.—**Dover.**—ROADS.—Widening of the Folkestone-road to a width of 60 ft. for a distance of approximately 600 yds., for the T.C. Mr. Wm. B. Smith, Borough Engineer, Maison Dieu House, Dover. Deposit £2 2s.

NOVEMBER 27.—**Leyton.**—ROADS.—Reconstruction of portions of Lea Bridge-road with reinforced concrete and granite sett paving, for the U.D.C. Mr. E. H. Essex, Surveyor, Town Hall, Leyton. Deposit £10.

NOVEMBER 27.—**Newton Abbot.**—WATER MAIN.—Providing and laying 1,100 yds. of 3 in. cast-iron water main, in the parish of Kingskerswell, for the R.D.C. Mr. R. A. Rogers, surveyor, Union-street, Newton Abbot.

NOVEMBER 28.—**Birmingham.**—SEWERS.—Construction of about 2,135 yds. of brick and concrete sewers, and 150 yds. of stoneware and cast-iron pipe sewers, for the T.C. Mr. H. H. Humphries, City Engineer, The Council House, Birmingham. Deposit £2.

NOVEMBER 28.—**Manchester.**—ROADS.—For sewering, draining, kerbing, ballasting, &c., roads on the Burnage Housing Estate, for the T.C. City Engineers (District Surveyor's Department), Town Hall, Manchester. Deposit £1 1s.

NOVEMBER 30.—**Adwick-le-Street.**—SEWAGE DISPOSAL WORKS.—For construction or sewage disposal works at Skellow, for the R.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street, near Doncaster. Deposit £2.

NOVEMBER 30.—**Hay (Breconshire).**—RESERVOIR RECONSTRUCTION.—For (*a*) Carrying out, for the U.D.C., the reconstruction of the watertight lining of the filter bed at the waterworks at Hay Common; (*b*) also for erecting unclimbable iron fencing round reservoir and filter bed. Tenders for whole of work or for (*a*) or (*b*). Mr. H. Gilby, surveyor, Hay. Deposit £1 1s.

NOVEMBER 30.—**Lauder.**—CEMETERY EXTENSION.—For building stone and brick walls, draining and levelling, in connection with an extension of the cemetery. Mr. Geo. L. Broomfield, Lauder.

NOVEMBER 30. — **Witham.** — SEWAGE DISPOSAL WORKS.—Construction of sewage disposal works, for the U.D.C. Messrs. Sands & Walker, Milton Chambers, Nottingham. Deposit £3 3s.

DECEMBER 3.—**Barnsley.**—ROADS.—For making up of Salisbury-street, Kensington-road, Canning-street (Worsbro' Common), Dillington-square, and Dumfries-row, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

✱DECEMBER 3.—**London.**—TAR PAVING WORKS, &c.—For carrying out tar paving works, &c., to the Council's elementary and other schools and other premises or sites provided or maintained by the Council for a period of twelve calendar months commencing on January 1, 1924, and thereafter until determined by three calendar months' notice given by either party, for the L.C.C. Architect to the Council, The County Hall (Room 3), Westminster Bridge, S.E. 1.

DECEMBER 8. — **Kidderminster.**—PAVING.—Laying reinforced concrete foundation and paving with granite setts in Station Hill, for the T.C. Mr. J. Hawcroft, Borough Engineer, Town Hall, Kidderminster. Deposit £2 2s.

DECEMBER 11.—**Gosforth.**—SEWERS.—Laying new sewers and formation of roadway on housing site, for the U.D.C. Mr. Geo. Nelson, Surveyor, Council Chambers, High-street, Gosforth.

✱NO DATE.—**Wallasey.**—WATER CULVERT AND PUMP ROOM.—Building of a water culvert and pump room below ground level, for the County Borough Council of Wallasey. Borough Electrical Engineer and Manager, Mr. B. T. Hawkins, at his office, Seaview-road, Wallasey.

Competitions.

(*See Competition News, page 756*).

Auction Sales, Tenders, etc.

NOVEMBER 17. — **Reading.** — ADDITIONS. — The director of Messrs. M. Venner & Sons, Ltd., Reading, are prepared to consider names of builders and contractors who would be prepared to submit tenders for the erection of additions to the Berkshire Bacon Factory, Reading. Mr. Frederick G. Sainsbury, M.S.A., M.I.Struct.E., architect, 154, Friar-street, Reading.

NOVEMBER 20. — **East Kent.** — Messrs. Worsfold & Hayward (in conjunction with Messrs. S. Hinds & Son) will sell, at the Wingham Colliery, between Dover and Canterbury, valuable colliery plant and machinery. Market-square, Dover, and Walmer, Kent.

NOVEMBER 20.—**London, E.C.**—Messrs. St. Quintin, Son & Stanley are instructed to offer for sale Crown lands, by direction of the Commissioner of His Majesty's Woods, Forests and Land Revenues, at Winchester House, Old Broad-street, E.C.2, valuable corner freehold building site, known as 110 to 116 (even), Curtain-road, and 1 to 10, Union-place, E.C.; also various sites will be let by auction, by Order of the Corporation of the City of London. Auctioneers, 50 Threadneedle-street E.C.2.

NOVEMBER 21. — **Hayes (Middlesex).** — Messrs. Henry Butcher & Co. have received instructions to sell, by order of Messrs. Sir Robert McAlpine & Sons, on completion of Hayes housing contract, at Hayes, Middlesex, surplus building material, plant and stores office furniture, &c., including several temporary and dismantled wooden workshops, offices, huts, &c. Auctioneers, 63 & 64, Chancery-lane, London, W.C.2.

NOVEMBER 21. — **Newhaven.** — Messrs. Fuller, Horsey & Co. will sell in lots, by order of C. J. Wills & Sons, Ltd., on account of completion of contract at Newhaven Harbour, contractors' plant, including a 10-ton Wilson loco. crane. Auctioneers, 11, Billiter-square, E.C.3.

✱NOVEMBER 21.—**North Cheam.**—Messrs. Veryard & Yates will sell (adjoining on Victoria Hotel) useful building materials, &c. Auctioneers, 365, Norwood-road, S.E.27.

NOVEMBER 22.— **London.**— Messrs. Kemsley will offer for sale at the London Auction Mart, block of freehold building land known as the Chingford Hall Estate, of approximately 40 acres; sewer, gas and water available. Auctioneers, Broad-street House, E.C.2.

✱NOVEMBER 27.—**Richmond.**—Messrs. J. T. Skelding & Co. will sell, *re* W. D. Morris & Co., Ltd., in voluntary liquidation (by order of the Liquidator, E. K. Hawkins, Esq., F.S.A.A., Bowden Works, Grove-road, Richmond) the whole of the stock and plant of the above firm of builders and decorators. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

✱NOVEMBER 28. — **Berkshire.** — Messrs. Knight, Frank & Rutley will sell, at Windsor (about 2 miles from the Royal Borough and 20 miles from London), the freehold residential property known as the St. Leonard's Hill Estate. The noble mansion, with garages and stabling, a dower house known as St. Leonard's Dale, four agricultural dairy holdings, the whole extending to about 630 acres. Auctioneers, 20, Hanover-square, W.1.

NOVEMBER 28.—**Rotherhithe, S.E.16.**—Messrs. J. T. Skelding & Co. will sell (by kind permission of Messrs. Scantlin, Taylor & Co.), at Appleby's Yard, Silwood street, Rotherhithe, S.E.16, well-seasoned, dry stock of timber of a large variety of various woods. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

✱DECEMBER 4 AND 5.—**London, E.9.**—Mr. F. H. Clark will sell, at the National Projectile Factory, Hackney Marshes, E.9, all the materials contained therein, including a quantity of building materials, portable buildings, glass, &c. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

DECEMBER 13.—**London, E.C.**—Mr. Joseph Stower will sell, with vacant possession, freehold property containing the important area of about 75,000 ft., or nearly 1¾ acres, prominently and conveniently situate on the north side of and fronting the main Bow-road. Auctioneers, 43, Chancery-lane, London, W.C.2.

Public Appointments.

✱NOVEMBER 21.—**Hull.**—ARCHITECTURAL ASSISTANTS.—Two temporary Architectural Assistants, capable of surveying and levelling in the City Architect's Department, by the Corporation of the City of Hull. City Architect, Guildhall, Hull.

✱NOVEMBER 22.—**Godstone.**—Buildings Inspector required in the office of the Surveyor by the Godstone R.D.C. Mr. Christopher Phillips, Clerk to the Council, Council Offices, Oxted, Surrey.

NOVEMBER 26.—**Eastbourne.**—General Foreman in the Borough Engineer and Surveyor's Department required by the County Borough Council of Eastbourne. Mr. Leslie Roseveare, M.Inst.C.E., Borough Engineer, Town Hall, Eastbourne.

NOVEMBER 26. — **Islington, N.** — Competent Quantity Surveyors for taking off, preparation and issue of bills of quantities for an extension of the municipal offices, and for two housing schemes by the Metropolitan Borough of Islington. Council's Architect, Mr. E. C. P. Monson, F.R.I.B.A., F.S.E., &c., of Finsbury-pavement House, 120, Moorgate, London, E.C.2.

✱NOVEMBER 28.—**Manchester.**—LECTURER.—Lecturer in Architecture and Master in Design required at the University of Manchester. The Internal Registrar, University of Manchester.

DECEMBER 6.—**Greenwich, S.E.10.**—The Council of the Metropolitan Borough of Greenwich is prepared to receive applications for the following appointments:—(1) Grade B Clerk in the Works Department; (2) Grade A Clerk (between the ages of 17 and 21), in the Town Clerk's Department. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10, endorsed "Grade B Clerk," or "Grade A Clerk," as the case may be.

✱NO DATE.—**Cardiff.**—Architectural Assistant required in the County School Architect's Office; also a Quantity Surveyor. Mr. D. Pugh-Jones, County Architect, County Hall, Cardiff.

THE WEEK IN PARLIAMENT.

WESTMINSTER, *Wednesday.*

PARLIAMENT reassembled for the Autumn Session on Tuesday, November 13th.

Houses Sanctioned and Completed.

Sir Kingsley Wood asked the Minister of Health for the number of houses respectively sanctioned, built, and in course of erection under The Housing, &c., Act, 1923.

Sir W. Joynson-Hicks said that 57,830 houses were provided for in schemes approved under The Housing, &c., Act, 1923, so far as returns had been furnished by local authorities, 1,849 houses had been completed ready for occupation and 10,854 were in course of erection on the 1st instant.

Answering a further question, Sir Wm. Joynson-Hicks said that by November 1, 10,854 houses had been commenced and 1,849 houses completed under The Housing, &c., Act, 1923. In addition 1,366 houses were commenced and 2,523 houses completed since August 1 last in connection with uncompleted schemes under The Housing, Town-Planning, &c., Act, 1919. Statistics were not available as to the number of working class houses erected without State assistance during the period, but from returns which he had recently obtained approximately 20,000 new houses of a rateable value not exceeding £26 had been completed during the six months ending September 30 last and over 22,000 containing five rooms or less were in course of construction at that date.

Schemes Sanctioned.

Sir W. Joynson-Hicks informed Sir Walter de Frece that schemes had been approved under The Housing, &c., Act, 1923, providing for the erection of 26,705 houses by local authorities, 3,040 houses by societies, trustees and companies acting under Section 3 of the Act, and 28,085 houses by other forms of private enterprise. Those schemes covered practically the whole country and embrace the areas of nearly 600 local authorities.

Lt.-Col. Guinness said that on November 5, 1923, which was the latest date at which the information was available, 727,331 notices of appeal against the new assessments of property to Income Tax, Schedule A, had been entered. Of this number 620,600 had been disposed of, leaving 106,731 still to be dealt with.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDARE.—Agreement has been reached between the Aberdare and Mountain Ash U.D.C. for joint purchase of the old Aberdare Canal at approximate cost of £2,400. It is proposed to complete works estimated to cost £42,000, as follows, in the canal bed: improvement, Mountain Ash and Abercynon main road, and construction of new road on canal side Abercynon lock to Town Hall, Mountain Ash; improvement of road, Cwmbach to Mountain Ash. Formal notice of acquirement intention has been given by parties concerned.

BEWDLEY.—Bungalow, for Mr. Clement Bell.

BRECONSHIRE.—The Ministry of Health is to examine ground of proposed new Trefecca sewer scheme by Hay R.D.C.——Sanction to expenditure by Hay Council of £4,000 on new cattle market has been received subject to site being suitable.——The Brecon (Town) Public Works Committee has passed plans as follows: New sports pavilion for Christ College, Brecon; new theatre for Messrs. R. W. Phillips & Sons. The T.C. has applied for sanction to borrow £7,000 for new high-level water works, stipulating all material used to be British made.

BRENTWOOD.—Plan passed by U.D.C.: Shop, Crown-street, for Larkin & Sons.

BRIGHTON.—Plans passed by T.C.: Conversion into flats, 38, Montpelier-crescent, for Executors of E. J. Reeves; four houses, Hollingbury-road, for W. J. Burstow.

BRISLINGTON.—The Sutton Trustees propose to erect 103 houses in Brislington, all of which are to rank as subsidy houses.

BROMLEY—Plans passed by R.D.C.: Mr. J. Lewis, two detached bungalows, Aperfield-road, Biggin-hill; Mr. E. P. Fitch, two detached bungalows, Aperfield-road, Biggin-hill; Mr. W. F. Miles, detached bungalow, Sutherland-avenue, Biggin-hill; Mr. L. Fosbrooke, garage at Ashlands, Cudham-lane; Mr. H. Lynch-Watson, bungalow, Longdon Wood-avenue, Keston; Mr. E. E. Morris, bungalow at Main-road, Leeson's-hill, St. Paul's Cray; Mr. C. P. Pooley, bungalow, Honeyden-road, North Cray.

CARDIGANSHIRE.—The County Council has decided to make grant towards erection of three bridges at Rhyd, Trebedw, and Henllan by the Llandyssul Council. The Cardigan R.D.C. has applied for grant towards reconstruction of Llechryd-Aberporth road; estimate £7,300.

CALLINGTON (CORNWALL).—The U.D.C. has decided to lay down two hard courts for tennis and a bowling green in Saltash-road recreation field, at an estimated cost of £475

CHISLEHURST.—Mr. T. R. Ferens has given another £10,000 so that the extension to the Farrington Girls' School may be carried out.

DALTON.—Plans passed by U.D.C.: Bungalow at Ireleth, for Mr. H. T. Davidson; new shippon and alterations at Sandside Farm; new shippon and alteration at Billincoat Farm.

DARLINGTON.—The Streets Committee has approved plans for 200 houses, with respect to which the subsidy will be applied for. Sixteen are for the Darlington Co-operative Society.

DEVON.—The C.C. Public Health and Housing Committee is appealing to the Ministry of Health to be allowed to complete the children's pavilion at the Hawkmoor Institution for tuberculous patients.—— The Committee has decided to acquire a site of not less than four acres within reasonable distance of Exeter upon which to erect a hospital.

DUMBARTON.—At Dean of Guild Court plans were passed for an additional 40 houses to be built at Silverton, forming the fourth development of the municipal housing scheme. Mr. W. A. Macartney, the burgh engineer, stated that the cost of the house would be about £400 for the three-apartment variety, and about £475 for the four-apartment variety.

EAST COWES.—Plans for a pair of houses in Oakfield-road, for Messrs. Brading & Son, and a house in York-avenue, for Mr. J. Nayler, have been approved by the U.D.C.

EAST LOTHIAN.—The East Lothian Water Board has decided to put in hand two water extension works, with a view to relieving unemployment and securing an adequate supply to the colliery districts. One scheme, estimated to cost £54,291, involves the laying of a 12 in. main from the Hopes Valley to a service reservoir to be constructed near Haddington. The other, estimated to cost £30,625, provides for the laying of a new trunk main, together with radiating mains, to the existing system.

FALMOUTH.—Mr. P. M. Crosthwaite and Dr. W. V. Shaw, Inspectors of the Ministry of Health, have held an inquiry into the application of the T.C. for sanction to borrow £80,000 for a sewerage scheme.

FLINTSHIRE.—Mr. H. N. Gladstone, of Hawarden Castle, Lord Lieutenant of Flintshire, has offered the Flintshire County Council £7,000 towards establishing a maternity home for Flintshire, subject to the institution being called the "Catherine Gladstone Memorial Home."

GILLINGHAM.—Plans passed by T.C.: Lock-up shop, Woodside, Wigmore, by Mr. E. J. Hammond, for Mr. F. Knight; shop, with dwelling, junction of Barnsole-road with Park-avenue, by Mr. Marshall Harvey, for Mr. Miller; 120 houses, Larkfield and Alexandra-avenues, by Mr. A. W. Little; shop and dwelling, Woodside, Wigmore, by Mr. E. J. Hammond, for Mr. F. Knight; lock-up shop, Gad's-hill, by Mr. Davenport, for Mr. A. Hart; bungalow, Wigmore-road, by Mr. E. J. Hammond, for Mr. F. Parham; bungalow, Barnsole-road, by Mr. E. J. Hammond, for Mr. G. C. Swain.

GLAMORGAN.—The Glamorgan County Council is to proceed with following works: New school and additions at Tymeinwr to accommodate 550 children; new school at Larleston for 150 children; additions to schools at Kenfig-hill for 50 additional scholars; additions to school at Plasnewydd, Maesteg, for 277 children and additions to Derwen Deg Schools, Gellygaer, for 100 children. The Gower R.D.C. is to borrow £6,470 to carry out Penclawdd-Llanrhidian road improvement.

GLASGOW.—The Dean of Guild Court have passed the following: Double cottages on the south-west side of St. Bride's-road, Newlands, for Mrs. Baird and Mrs. Samson; six semi-detached villas in Courthill-avenue, Cathcart, for Messrs. Andrew Aitken & Co.; alterations and additions to the works of Messrs. Alexander Ferguson & Co., Ruchill-street, Maryhill; alterations and additions to the works of Messrs. Schweppes, Ltd., Killean-street, Possilpark; extensions to works for Messrs. Fred Braby & Co., Darnick-street, Springburn; additions to the factory of Lang's Bread Co., in Wesleyan-street; a house to be erected at Belvedere Hospital, by the Health Department of the Glasgow Corporation; double bungalow in Springburn-road, for James Hodgnes; and a verandah at Cowcaddens, Kintergarten, for Health Department of the Glasgow Corporation.

HASTINGS:—Plans passed by T.C.: Pair semi-detached houses, Victoria-avenue, Mr. W. J. Emerton, owner; alterations to London Joint City and Midland Bank, 4, Robertson-street, London Joint City & Midland Bank, owners, Whinney, Son & Austen Hall, architects; workshops, Gas Co.'s yard, Queen's-road, Mr. J. Simonds, owner; conversion of 60, High-street, into shops, Mr. W. Pollard, owner, Messrs. Callow & Callow, architects; shop, Bexhill-road, Mr. W. Pulman, owner; house, Filsham-road, Mr. F. Mumford, owner; two semi-detached houses, Beaufort-road, Mr. J. E. Jerham, owner, Mr. J. Hunt, architect; detached house, Collier-road, Miss E. M. Newman, owner, Mr. H. W. Coussens, architect.

HAY.—The Ministry of Health has assented to the U.D.C. borrowing £2,750 for water works improvements

HAYES.—Plans have been approved by the U.D.C. for two houses in Cromwell-road, for Mr. W. Brooks; extensions to the factory of Messrs. Harrison & Sons, and for 50 houses for the G.W.R. Garden Village Society.

HEBDEN BRIDGE.—A scheme has been launched for the erection of a new Trades Club, and the nucleus of a building fund has been formed by a loan of £3,000 from the local trade unions. An early start is to be made.

HECKMONDWIKE.—Plans passed: Alterations and additions in Beck-lane, for Messrs. Hy. Cockhill & Sons, Ltd.; two houses at Nunroyd, for Mr. W. Rhodes.

HORSFORTH.—Plans passed: Two houses in Victoria-crescent, for Messrs. Road Bros., and four houses in Victoria-walk, for Mr. J. B. Lees.

HOVE.—Plans passed by T.C.: Messrs. Gates & Sons, conversion into flats, "Hassendean," New Church-road; Messrs. Albery & Lawrence, for Mr. J. S. Candeline, conversion into flats, 15, King's-gardens; Mr. P. B. Hunter, for Mr. E. H. Jeliett, conversion into flats, 30, Carlisle-road; Mr. W. H. Overton, for Mr. W. J. Keene, conversion into flats, 10, Brunswick-square; Mr. W. Whiteman, for Mrs. Hotton, house, Glebe villas; Mr. H. Phibbs, for Mr. B. Bull, conversion into flats, 8, King's-gardens; Mr. W. J. Burstow, for Mr. W. A. Streader, pair houses, Leicester-villas; Mr. W. Stringer, for Dr. H. S. Hollis, house, Nizells-avenue; Mr. F. Goodchild, for Mr. Quero, house, Hallyburton-road; Mr. J. M. Comber, for Mr. H. W. Tingley, three houses, Raphael-road; Messrs. Albery & Lawrence, for Mr. J. S. Candeline, conversion into flats, 10 and 11, King's-gardens; Mr. E. E. Brown, for Mr. C. Harry, house and garage, Langdale-road; Mr. G. Hutton, for Mr. H. C. Hillier, house, Holland-road.

KEIGHLEY.—Plans passed: Ten houses at High Spring Gardens-lane, for Messrs. E. Turner, Ltd.; new street, as a continuation of Raglan-street, for Mr. Thomas Hey; additions at Victoria-road, for Mr. Percy Clough; two houses at Oakworth-road, for Miss Doris Midgeley; and 14 houses at Oakworth-road, for Miss Doris Midgeley.

KIDDERMINSTER.—Plans passed: Pair of houses at Aggborough, for Mr. G. R. Woodworth; two houses in Grosvenor-avenue, for Messrs. A. Stuart and H. Hughes; three lots of houses at Aggborough, for the Kidderminster House Builders, Ltd.; house in Stourbridge-road, for Mr. H. Mason; house in Chester-road, for Mr. H. Maulin; and bungalow at Aggborough, for Mr. W. L. Gittins.

KING'S LYNN.—Plans passed by T.C.: New granary, South Quay, for Messrs. Packhards & J. Fyson, Ltd.; extensions and offices, Boal Mills, for Messrs. R. & W. Paul, Ltd.

LAMPETER.—The Ministry of Transport has agreed to pay 15s. to every five paid by the Council in respect to the improvement of Lampeter-Tregaron and Lampeter-Llanybyther roads, estimated to cost £10,113. The Lampeter Council has decided to proceed with schemes.

LEEDS.—The T.C. have agreed to subsidies in respect of the following houses: Mr. Henry Divine, house, Walmsley-road, Cardigan-road; Mr. Charles Wilkinson, bungalow, off Nutting Grove-terrace, Farnley; Mr. Melville McClure, detached house, Chapel Allerton Hall Estate; Mr. John Fletcher, eight semi-detached houses, Devonshire-avenue, Roundhay; Mr. Alfred Booth, two semi-detached houses, Grove Hall-drive Estate, Beeston; William Airey & Son, Ltd., house, Ring-road, near Shadwell-lane.

LETHAM.—The Stirling C.C. has passed plans by the Carron Co. for 32 two-apartment houses and 32 three-apartment houses, for the Carron Co.

LINCOLN.—The T.C. has decided to erect 16 houses of concrete by direct labour at an estimated cost of £490 per house. The plans have been prepared by Mr. Court, Borough Surveyor, and approved by the Council.

LLANDILO.—Extensive alterations to the mart buildings have been decided upon by the Council. The buildings will be reconstructed so that they may be used as evening concert halls, and additions will be made.

LONDON (KENSINGTON).—The B.C. of Kensington has decided to erect five cottages and 38 flats on St. Quintin's Estate, work on these to commence at the earliest possible date.

LONDON (LEWISHAM).—Plans passed by B.C.: Eaglen Bros., six houses, Heather-road; Thos. H. Sawyer & Sons, lock-up shop, Tranquil-vale; W. J. Scudamore, Ltd., house, Marvels-lane.

MANCHESTER.—Plans passed by the Corporation: A. Stanley, addition to "Frankwyn," Wilbraham-road, Choriton-cum-Hardy; W. Cox & Sons, store, Bishop-street, Moss Side; Mrs. W. H. Gaffney, garages and washhouses to three houses, Wilbraham-road, Choriton-cum-Hardy; H. J. Simpson, lock-up garages, "Wellfield" Upper Choriton-road, Moss Side; F. Hartley, garage and washhouse to house, Wellington-road, Withington; L. Haws, picture house, York-street, Earl-street, and Gore-street, Hulme; Wingfield Park Estates, house, Manor-drive, West Didsbury; A. B. Tattersall, two houses, St. Werburgh's-road, Choriton-cum-Hardy; Rodgers Bros., ten houses, Brantingham-road and Springbridge-road, Withington; Manchester City Football Club, two houses, Maine-road, Withington; J. & N. Kayley, additions to works, Holland-street and Spence-street, Newton Heath; Rev. G. Fracuse, revised plan, St. Alban's Men's Club, John-street, Ancoats; J. Cumberledge, shop fronts, 13-19, Cecil-road, Blackley; Mrs. E. Potts, two houses, Park-road, Crumpsall; J. Rowen, laundry, Penn-street, Moston; Harrods, Ltd., rebuilding of premises, Deansgate, King-street, and Police-street; A. Redfern, 59 houses, Middleton-road, North-avenue, Redford-road, Kendall-road, and Welford-road, Crumpsall; Club Committee, additions to Conservative Club, Rusholme-grove, Rusholme; Duncan & Foster, Ltd., addition to bakery, York-street, Choriton-on-Medlock; W. Mellor, 18 houses, Telfor-road, Birchfields-road, Rusholme; S. & E. Clough, dedication plans of new street, Calverley-avenue, Burnage; J. A. Booth, seven houses and shops, Beresford-road and Buller-road, Rusholme; L. Egerton, dedication plans of new street continuation of Wellington-road, Finchley-road, Brocklebank-road and Barnsfold-avenue, Fallowfield; Electricity Committee, electricity sub-station, rear of 252-258, City-road.——Sanction to the City Council by the Ministry of Health for the appropriation of a portion of the Wilbraham-road Housing Estate as a site for a public elementary school. Messrs. Potts & Sinclair, Ltd., of Stanley House, Broome-lane, Higher Broughton, are proposing to erect houses in Park-lane, Broughton, and bungalows in Washway-road, Sale, Cheshire.

MARSDEN.—Plan passed by U.D.C.: Offices and premises at Bank Bottom Mills, for Mr. J. E. Crowther.

MERTHYR TYDFIL.—The B.C. has under consideration three area schemes for clearance of slum property

MONMOUTHSHIRE.—The County E.C. has applied for sanction to expend £149,500 on erection of buildings, as follows:—Conversion of Hafod-y-ddol extension of Abertillery County School into a separate secondary school, estimate £1,130; provision of new laboratory at New Tredegar for mining students, £1,250; new elementary schools, Cwmbran, £12,250; Pontllanfraith, £15,350; Markham village, £13,100; Argoed, £5,000; Cwmcarn, £10,000; Pontawaun, £6,250 plus cost of site; Cefn Forest, £16,250; Ynysddu, £10,000; Trauch, Pontypool, £16,250; practical instruction centre, Georgetown Boys' School, Tredegar, £2,750; and a school of permanent type for mental defectives at Caerleon, £40,000.—Subsidence has necessitated estimated expenditure of £1,000 by Abertillery U.D.C. on gas and water mains renewals.—The Jockey Club is reported to have granted licence to the Piercefield Park, Chepstow, Syndicate, and £150,000 will, according to estimates, be spent in preparing stands and ground for racing.—Plans passed by Llantarnam U.D.C.: House for Mr. J. De Rees, Llantarnam; bungalow for Mr. J. W. Holmes; 10 houses for Messrs. L. & H. Gibson, Newport (with subsidy).—The Caerleon Council is considering the conversion of the Industrial School to flats and tenements. The Council has passed plans for alterations to outbuildings for Mr. Percy Stafford, and has applied for grant and sanction to carry out proposed sewerage scheme.—The Ebbw Vale E.C. has received a report from the architect (Mr. P. T. Davies), recommending erection of a new school at Gantre site as an alternative to building nine new class-rooms required at various district schools.—The scheme of laying out the Blaina recreation ground, at estimated cost £16,000, is to be immediately proceeded with by U.D.C., the Miners' Welfare and Unemployment Grants Committees having contributed largely.

NEW ROMNEY.—Plans have been approved by the R.D.C. for a bungalow at Dymchurch, for Mr. Wrighton, and a small holding at Dymchurch, for Mr. Fidler.

NEW QUAY (CARDIGAN).—The Memorial Hall Committee, having £2,500 in, with assurance of further £500, has decided to take steps to immediately proceed with erection of building. Mr. T. J. Davies is the committee secretary.

NEWCASTLE.—Work has been commenced on the first part of the Newcastle Central Station extensions

* See also our List of Contracts, Competitions, etc.

by Messrs. Braby & Co., of Glasgow and London. This work, which was mentioned in our issue of November 2, is being carried out under the supervision and from the designs of the Company's Architect, Mr. Stephen Wilkinson, A.F.C., F.R.I.B.A.——The Corporation Town Improvement and Streets' Committee have approved plans for 65 new self-contained houses in various parts of the city.

NEWPORT (MON).—The Public Works Committee will forward for approval of Council plans for 114 new houses.—Messrs. Lysaght's have decided to grant £40 to each employee erecting a house. No grant will be made for houses purchased.—The Council has opened a Housing Act information bureau. There are already 129 applicants in respect to 400 houses for subsidy grant.—The Borough Engineer has been instructed to prepare plans and estimates for new slaughter-houses on site adjoining the refuse destructor. —A relief work scheme, estimated to cost £4,000, for improvement of Barrack-lane has received approval.— The Ministry of Transport has now made a tentative offer of 65 per cent. of cost of reconstructing Newport bridge and widening to 70 ft. The Council has now asked for 75 per cent., the estimate is £150,000 to £180,000, and hopes to be able to proceed with work in January so far as preliminary demolition is concerned.—The Housing Committee has informed the Public Utility Housing Society of Cardiff that Council's grants proposals will be applicable to houses for railwaymen which the Society proposes to erect, and that in order to facilitate a start Council has applied for sanction for assisting in erecting 300 houses.—The Ministry of Health has notified Council of agreement to a subsidy of £110 for parlour-type houses, and £90 for non-parlour type providing 300 houses are commenced before March 31st next, and completed by September 30th.—The Council is to widen Malpas-road to 58 ft. at estimated cost of £13,000, and work, on Ministry advice, is to be commenced at once.—The Electricity Commissioners have agreed to Council borrowing £51,500 for specified electricity undertakings and extensions, and has withheld sanction temporarily for loan of another £101,000 for similar work.—Application is to be made by B.C. for sanction to borrow £6,000 for purchase of six single-decked motor omnibuses.—The Parks and Education Committees are considering the purchase at £6,500 of St. Julian House and 14 acres of land for conversion to school and playgrounds.

OAKHAM.—Plans have been prepared and approved of for the improvement of Oakham Institute. The work is to be put in hand immediately. Mr. F. W. Nicholls is the architect.

PAUL (CORNWALL).—The U.D.C. has received a letter from the Ministry of Health stating that representatives of Messrs. Druitt, Cowell & Wheatley, architects, Penzance, have called at the Ministry to discuss the fees payable to them in connection with the Paul housing scheme. The architects offered to accept £450 in full discharge of all claims against the Council, and the Ministry recommended the Council to settle the matter on this basis.——The Ministry of Health has notified the U.D.C. that a public inquiry will be held on November 16 into the Council's application for sanction to borrow £8,000 for the Mousehole-Newlyn cliff improvement scheme.

PEMBROKESHIRE.—The County Council has been notified that the Ministry of Transport will make grant of £24,000 towards £32,000 required for road reconstruction between Velindre Bridge and Jericho, and that Ministry will prepare the plans, &c.

PENARTH.—The Council has resolved to invite tenders for erection of 62 houses, 22 on behalf of the U.D.C. and 40 for the new housing society called into being at instance of Council, the membership being applicants for subsidy grants under new Act. The Council is negotiating for land and grants for widening the Esplanade.

PICKERING.—Plans by Mr. L. Smith for two semi-detached villas on the Beacon estate, Middleton-road, have been approved.

PLYMPTON (DEVON).—The R.D.C. has adopted the Small Dwellings Acquisition Act, and agreed to grant subsidies to private enterprise equivalent to £6 per year per house for twenty years.

PLYMOUTH.—Plans passed by T.C.: H. Hoyle, house, Vicarage-road, St. Budeaux; E. C. Behenna, house, Cedarcroft-road; E. Hill, two houses, Cedarcroft-road; Pearce & Hill, two houses, Bladderley-road; A. T. Kennard, three houses, Seaton-place, Ford; Plymouth Education Authority, new latrines, High-street School, Stonehouse; W. H. Joce, two houses, Lower Compton-road; Babbage, Friendship & Hicks, factory, Regent-street.

PONTARDAWE.—The L.M. & S. Railway have asked for conference with Pontardulais R.D.C. for construction of new Bethania railway bridge, Lower Cwmtwrch. —The Abercrave Colliery Company has asked Pontardulais R.D.C. to construct 100 houses in the locality for its workmen. The letter stated that the Pontardawe U.D.C. proposed meeting colliery companies by further erection of houses at Pontardawe, Godregraig and Gwaun-cae-Gurwen. The application is to be investigated by Council.

PRESTON.—The Ministry of Health has sanctioned the housing scheme of the R.D.C., under which a subsidy will be available to the extent of a lump sum of £75 on the completion of each house; or an alternative of £6 a year for 20 years. It is expected that this scheme will affect about 200 houses in the Council's area.

REIGATE.—Plans passed by R.D.C.: Chaldon, cottage and laundry, Old Quarry Hall, Quarry Hill-road, Mr. Paul Kohn Speyer; Chipstead, cottage, Doghurst-lane, Mr. J. H. Oldham, Chipstead; Horley, house, Balcombe-road, Mr. G. Palmerine, Croydon; Kingswood, two houses, The Chase, Messrs. R. Costain & Sons, Liverpool; two semi-detached cottages, Buckland-lane, Messrs. T. & R. Blackman, Kingswood; bungalow, Josephine-avenue Kingswood Mr. Roderic Walters; Merstham, two detached houses, Brighton-road, Hooley, Mr. George Cooke, Coulsdon; three detached houses, new road off Shepherd's-hill, Mr. T. W. Moore, Eastcote, Middlesex; Walton, house and shop, High-street, Walton, Mr. John Yeatman, Walton; rebuilding and additions to house, "Lane End," Chucks-lane, Hon. Frank Russell.

ROCHDALE.—An inquiry has been held by the Ministry of Health into the proposal of the T.C. to clear away a slum area known as Victoria-place. Eighty-three houses will be demolished, and the Council proposes to erect 20 new ones on the site and 63 on other sites.

SCALBY.—Plans passed by U.D.C.: Bungalow, for Mr. Taylor, Burniston-road; bungalow, for Mr. Bentley, Cross-lane; house, shop and outbuildings, for Mr. Welford, South-street; nine houses, for Mr. F. Robson, Scalby-road; house, Scalby Garden Estate, for Mrs. Durant; two bungalows, for Mr. Kelvey, new road near Cross-lane; three pairs of semi-detached bungalows, for Mr. Dixon, off Burniston-road; pair of semi-detached bungalows, for Messrs. Bingham & Bailey, Cross-lane; one pair semi-detached houses, for Mr. Hudson.

SHIPLEY (YORKSHIRE).—Plans passed: Five pairs of semi-detached houses at Shipley Fields-roads, for Messrs. Patchett Bros.; one pair of semi-detached houses in Bargrange-avenue, for Messrs. H. Chippendale & Co.; three pairs of semi-detached houses at Otley-road and Bargrange-avenue, for Messrs. H. Chippendale & Co.; and canteen at Manor-lane, for Messrs. Dean & Thompson.

SOUTH SHIELDS.—The Borough Engineer of South Shields (Mr. F. P. Sissons) has prepared plans and estimates, and the scheme has been approved by the Council in committee, for a sea promenade from South Shields to Marsden. The estimated cost is £100,000, and the whole of the work will, if the plans are ultimately adopted, be carried out by surplus labour. The scheme is a joint effort by the Corporation and Guardians to provide work for able-bodied men who are in receipt of outdoor relief. With slight exceptions, the whole of the works involved would be in the area of the Rural District Council and within South Shields Union.

SOUTHEND-ON-SEA.—Plans passed by T.C.: House, shop, lock-up shop, and conversion of two houses into shops, 136 & 138, London-road, for L. Bertorelli; ten houses and shops, Southchurch-road, for C. Wingrave; two houses, Fillebrook-avenue, for E. F. Selby; house, Cranleigh-drive, for F. Tomlin; two bungalows, Esplanade-gardens, for G. W. Eves; bungalow, Leigh Hall-road, for Mr. Buckland; four houses, Ilfracombe-road, for H. J. Huckle; bungalow, Fleming-crescent, for A. Butt; two bungalows, Olivia-drive, for J. Wood; house, Chadwick-road, for F. G. Bethley; two houses, South-avenue, for H. T. Arnold; five houses, Inverness-avenue, for W. Melloy; house, Kenilworth-gardens, Prittlewell Chase, for P. & D. Barham; six houses, St. Benet's-road, for E. E. Everitt; lock-up shop, High-street, Southend, for Miss M. E. Morris; house, Capadocia-street, for J. Clark; house, Surbiton avenue, for E. Quest; conversion of house into flats, Galton-road, for Mrs. Earle; conversion of two houses into two shops, 761 & 765, London-road, for B. Cossey; house and shop, Westborough-road, for D. S. Baker; house, London-road, for J. R. Marshall; three houses, Fairmead-avenue, for W. C. Ginn; house, shop and fish cleaning shed, Oban-road, for W. Pearce; two houses, Rochford-road, for G. F. Cattell; bungalow, Pavilion-drive, for A. & C. Lawford; bungalow, Eastwood-road, for Mrs. E. E. Martinall; ten garages, Ilfracombe-road, for C. Wingrave; two flats, London-road, for F. M. Wardill; two houses, Gordon-road, Leigh, for J. J. Joy; house and shop and four houses, Hamstel-road, for D. J. Standen; conversion of two houses into shops, Victoria-avenue, for F. F. Ramuz.

SPENBOROUGH.—Plans passed: House at Huddersfield-road, for Mr. J. Redfearn; additions to dining rooms at Clarence Mills, Cleckheaton, for Messrs. Lund Bros., Ltd.; boiler house at Spen-lane, for Messrs. John Harrison & Sons, Ltd.; house at Whitcliffe-road, Cleckheaton, for Mr. Harold Bennett; and bungalow at Whitechapel-lane, Scholes, for Mr. H. Jackson.

STRETFORD.—Plans passed by U.D.C.: Two lock-up shops, Chester-road, for Messrs. Booth Bros. (Manchester), Ltd.; goods office, Trafford Park-road, for the L. & N. Eastern Railway; two houses, Edge-lane, for Mr. J. G. Blakeway; four houses, Reynolds-road, for Mr. Vincent Slater; enclosing loading stage, Westinghouse-road, for the Automatic Bottle Makers, Ltd.; four houses, Brooks-road, for Messrs. Winders & Tindale; eight houses, Barton-road, for Messrs. Grimshaw & Thomas, Ltd.; sub-station, St. John's road, for S.U.D. Council (Electricity Department).

THURMASTON.—The U.D.C. has passed the plan of Mr. H. Herbert for the lay-out of the Highway Estate.

TOMINTOUL.—In order to assist Tomintoul development as a summer resort, the Duke of Richmond and Gordon has offered to defray the cost of a new sewerage scheme, amounting to £500.

TORQUAY.—Plans passed by T.C.: Mr. G. E. Body, house, Westhill-road; Mr. Cobbett, lay-out of road at Petitor; Mr. G. Packham, house, Torbay Hall Estate; Mr. R. E. Narracott, house, Torbay Hall Estate; Mr. F. Maule, houses, Meyrick-road; Mr. W. H. Kerslake, bungalow, Clennon-lane; Messrs. Murch & Tucker, houses, Windsor-road.

TWECHAR.—To meet developments in their mining operations, Messrs. Wm. Baird & Co. are about to erect at Twechar 150 workmen's houses.

UXBRIDGE.—Plans passed by R.D.C.: Houses on the Halden Estate, for Miss R. Blackford, Messrs. F. C. Buckeridge, E. Mackintosh, A. B. Crawford, R. E. A. Hayes, J. Forsdyke, L. Knights, R. Todd, K. B. Simson, P. V. Bruickin, T. Notley, and S. E. North. Bungalows on the Drummond Estate, for Messrs. Vicars, Harrop and E. Streen. House and bungalows on Swakeley's Estate, for Messrs. A. J. Houghton, Frost, and W. G. Tyler. Bungalows on the Hillingdon Village Estate, for Messrs. Wolfe and E. Woodcock.

WAKEFIELD.—Plans passed by T.C.: Mr. J. P. Firth, house, Horbury-road, for Mr. John Willison; Mr. A. Binks, two houses, North-avenue; Mr. A. V. Lynas, house, Horbury-road, for Mr. Edward Jackson; Mr. A. H. Lee, motor showrooms and additions to house and lock-up offices in Wood-street, George and Crown-yard, and Chancery-lane, for Messrs. Hyland, Ltd.; Mr. H. England, reconstruction of office in Union-street, for the Yorkshire (West Riding) Electric Tramways Co., Ltd.; Mr. H. England, house and shelter and lavatory accommodation in Barnsley-road, Sandal, for the Yorkshire (West Riding) Electric Tramway Co., Ltd.; Mr. W. Wrigley, house Manygates-lane, Sandal, for himself; Mr. W. H. Ogden house, St. Mark's-street, for Mr. L. Small.

WALLSEND.—The T.C. have provisionally accepted a tender for the erection of 144 houses at High Farm at a cost of £705 per block of two, which will be recognised as ranking for Government assistance.

WHITBY.—The Council has asked Messrs. W. H. Radford & Son, of Nottingham, to report fully to them on the improvement of the harbour and the sewer outfalls.—The local builders, after conference with the U.D.C., have decided to proceed with the erection of 14 subsidised houses on the west side, and eight applications have been received for sites on Gallow's Close estate on the east side. The work, together with the erection of the War Memorial Cottage Hospital, and a large ballroom at the Royal Hotel, is expected to commence at an early date.

WINCHESTER.—Plans passed by T.C.: Roman Catholic Church, St. Peter-street; house, Sleepers'-hill, St. Mary's-road; house, Berewecke-avenue.

WINDLESHAM.—Plans passed by U.D.C.: Bungalow at Hatton-hill, Windlesham, for Mr. C. Burge.

WINDSOR.—Plans for six houses by Mr. Sawyer, architect, on behalf of Mr. Neville, have been passed by the R.D.C.

WOMBWELL.—It is announced that the members of the local Builders' Federation will commence at once the building of 100 houses on the King's-road Housing site.

YORK.—Plans passed by T.C.: Sir R. N. Kay, three houses and shop, Bishopthorpe-road; J. J. Mitchell, house, Derwent-road; H. Hills, garage, Red House, Bootham-terrace; C. Martin, three houses, Curzon-terrace; Tadcaster Tower Brewery Co., aerated water factory, Piccadilly; G. H. Pegg, house, Aldreth-grove.

FIRES.

ABERDARE.—Fire has destroyed the grand stand on the Aberdare A.F.C.'s football field, the damage being estimated at £11,000, wholly covered by insurance.

LONDON.—A fire has occurred at Lever House, Thames Embankment, involving considerable damage.

NEWPORT (MON).—A fire has done damage running into thousands of pounds to the premises of (*a*) Messrs. Crosta's brush factory; (*b*) Messrs. Reynolds & Co.'s upholstery establishment: and (*c*) Messrs. Evans & Sons' heating and sanitary engineers' works, all of which were gutted.

ROCHDALE.—Dixon's Soap Works have been completely destroyed by a fire.

External Treatment of Concrete.

Arrangements have been made for Mr. Frederic Coleman to repeat the lecture he gave in September at the West End Cinema, on "External Textural Finishes in Concrete" and "The Application of Cast Concrete Stone to Present-day Building" (illustrated by a film showing the practical application of white cement stucco, and lantern slides showing American architecture). The dates are: Edinburgh, November 20; Glasgow, November 21; Birmingham, November 27. In Edinburgh the lecture will be given at the Gartshore Hall, 116, George-street, at 5 p.m.; in Glasgow, at 11 a.m., at Cranston's Picture House, Renfield-street. Tickets for the Edinburgh and Glasgow lectures may be obtained from Messrs. Sutherland, Matheson & Reid, 50, Wellington-street, Glasgow. The lecture in Birmingham will be held at the Regent Picture House, New-street, at 11.30 a.m. Tickets may be had on application to Messrs. Goodman & Co., Salford Bridge Wharf, Gravelly-hill, Birmingham. All interested are invited to attend.

Carillon of Bells, New York.

The carillon which Mr. John D. Rockefeller, Jun., is installing in the beautiful Gothic tower of Park-avenue Church, New York, in memory of his mother, is to be increased in size and number of bells. Some of the best brains in the architectural and engineering world of America have been engaged for some months in devising better accommodation for the bells than that which had been possible so far.

The bells will be 53 in number. The bass bell is to weigh 9 tons, whilst the total weight of the bells—apart from the gigantic framework (which will be in five sections) and the fittings—is to be over 50 tons. The premier carillon hitherto has been the famous one at Malines, where there are 45 bells, and the bass bell weighs 7½ tons.

Many of the bells for the new carillon are already cast and in readiness at the Croydon Bell Foundry of Messrs. Gillett & Johnston, who secured the contract in the face of keen international competition.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.
Fletton, at King's Cross	2 13 3
Do. grooved for plaster	2 15 3
Do. Bullnose	3 8 3
Best Stourbridge Fire brick:—	
2½ in.	11 3 0
3 in.	13 2 0

	£ s. d.
Best Blue Pressed Staffs.	9 11 6
Do. Bullnose	10 1 6
Blue Wire Cuts	7 11 6
D'ble Str'tch'rs	30 10 0
D'ble Headers	27 10 0
One Side and two Ends	31 10 0
Two Sides and one End	32 10 0
Splays and Squints	30 0 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers .. 22 0 0
Headers .. 21 10 0
Quoins, Bullnose and 4½ in. Flats .. 28 10 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. "	2 5	4 in. "	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
½ in. Shingle for Ferro-Concrete	14 0	" "
¼ in. "	15 0	" "
¼ in. Broken Brick "	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6
51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
Sirapite, Coarse	5 12 0
" Fine	3 9 6
" Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. 2, d. 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per f'. cube — 2 11½

PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube — 4 4
Do. do. delivered on road wagons at above stations, per ft. cube — 4 5
White basebed, 3d. per ft. cube extra.
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.
Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3

HARD YORK—
Delivered at any Goods Station London.

Scappled random blocks. Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
¾	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
¾	17/6
⅞	22/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

Per bundle	0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¼ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work "	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
⅜ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅝ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 8	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—

	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 0 0	..	16 0 0
" " " 24 g.	16 0 0	..	17 0 0
" " " 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in.	20 10 0	..	22 0 0

(under 3in. usual trade extras.)

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	41 10 0
Pipe in coils	42 0 0
Soil Pipe	45 0 0
Compo pipe	47 10 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

	£ s. d.	
Old lead, ex London area, at Mills per ton	27 0 0	.. —
Do., ex country, carriage forward per ton	28 0 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin " "	0 2 4	.. —
Copper nails "	0 2 3	.. —
Copper wire "	0 2 4	.. —
TIN—English Ingots "	0 2 1	.. —
SOLDER—Plumbers' "	0 1 0	.. —
Tinmen's "	0 1 2	.. —
Blowpipe "	0 1 4	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 7
" " " in barrels "	0 3 9
" " " in drums "	0 4 0
Boiled " " in barrels "	0 4 1
" " " in drums "	0 4 3
Turpentine in barrels "	0 0 3
" in drums (10 gall.) "	0 0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 5 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	79 10 0
Red Lead, Dry (packages extra) per ton	43 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocoa per cwt.	0 15 6
Size, XD Quality fkn.	0 3 6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 ,, thirds	4½d.	32 ,, thirds	10½d.
21 ,, fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 ,, thirds	6½d.	21 ,,	5½d.
26 ,, fourths	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 ,, thirds	7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
¼ Rolled plate	4½d.
⅜ Rough rolled	5½d.
½ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 6
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

TRADE NEWS.

An attractive page catalogue illustrating some of the many types of their folding and sliding doors, &c., is issued by the Richards-Wilcox Canadian Co., Ltd., of London, Ontario, Canada. The representatives of the firm in the United Kingdom are E. Hill Aldam & Co., Ltd., of 93, Stamford-street, S.E.1. The complete catalogue of 160 pages will be forwarded on request.

Manufacturers and others will find a perusal of the "What We Make" booklet issued by Tangyes, Ltd., of Cornwall Works, Birmingham, interesting and profitable. The various types of this firm's oil, gas and steam engines, pumping plant, lathes, and other products are illustrated and described in a neat and attractive manner.

Messrs. James Clark & Sons, Ltd., of the Blackfriars Glass Works, S.E.1, are to be congratulated on the noteworthy achievement in regard to the glazing work at Peter Robinson's shop front at Oxford-street, W., where they fitted the largest squares of polished plate glass ever supplied in this country. Each of the four largest squares measures approximately 291 in. by 120 in., a total superficial area of 242 ft. 6 in. in each square. These are records for size and areas in this country, and the work was done by Messrs. Clark's own staff to the order of Messrs. Samuel Haskins & Bros., Ltd., who supplied the entire bronze metal work for the shop fronts, entrance doors, grilles and marginses.

The main traffic between Ormesby, South Bank, Guisborough, and Middlesbrough concentrates in North Ormesby at Langbaurgh-place, and the road is being relaid under the direction of the Ministry of Transport. A concrete foundation, 7 to 8 in. thickness, is being laid on an excavated formation, and the concrete layer is reinforced by "Maxweld" fabric—a special steel interlocked double layer reinforcement supplied by Messrs. Richard Hill & Co., Ltd., reinforced concrete engineers, of Middlesbrough and London.

PATENTS.*

APPLICATIONS PUBLISHED.

181,713.—G. M. Gouyaud: Method of constructing reinforced concrete arches without using moulding, arched falseworks, or scaffoldings.

187,611.—H. H. Warmund: Composition of matter suitable for producing coatings, seals, or the like.

187,945.—R. S. K. Banerjee: Waste-preventing taps or valves.

189,134.—O. Lenart: Apparatus for grinding paint.

194,283.—Foraky Soc. Anon. Belge d'Entreprise de Forage et de Foncage and L. L. B. Denis: Apparatus for measuring the deviation of borings.

194,655.—R. M. Maunder: Lock.

199,725.—L. Courtot: Radiators for heating buildings.

200,543.—H. M. Cooper and H. B. Willmott: Lifting and dumping or ring discharge grab.

200,549.—W. Barraclough and W. T. Barraclough: Domestic fireplaces.

200,561.—A. Lynn: Method of forming ceilings in halls and other buildings.

200,564.—F. Hartgrove: Concrete block waterproof dressing.

200,569.—W. Wilkinson: Packing-cases and the like.

200,571.—H. R. Sankey: Fire-resisting doors and screens.

200,576.—H. J. Lee: Locks for doors.

200,632.—W. H. Brecknell: Door locks.

200,636.—J. E. C. De Wijs: Apparatus for directing circular saws for grinding on rotary stones.

200,674.—R. Simms: Ventilating cowls for poultry houses and other structures requiring ventilation.

200,693.—A. W. Topp: Production of lead compounds and the manufacture of paints and anti-corrosive compounds therefrom.

200,695.—Parker, Winder & Achurch, Ltd., and J. A. Wood: Operating-devices for fanlights or other pivoted windows or flaps.

200,697.—C. Dickie: Steam-heating installation.

200,703.—British Fibrocement Works, Ltd., and G. H. Euxton: Roofing sheets, tiles, and the like.

200,721.—F. L. Keppler: Manufacture of building and paving tiles and slabs.

200,726.—R. Newton: Cement or adhesive composition.

200,728.—F. Morton: Floors.

202,423.—G. W. Lancaster: Window structure and plurality of closures therefor.

202,465.—L. D. Vaney: Method of securing locks.

202,676.—G. H. Pledge: Showcase fittings.

202,698.—O. Frosell: Hard-setting magnesia compositions.

202,706.—Star Metal Stamping Co., Ltd., and C. W. Harris: Baths.

202,737.—T. Gare, sen.: Manufacture of bricks, blocks, slabs, and tiles.

202,742.—P. C. Cannon and Centrifugal Concrete Blocks and Poles, Ltd.: Manufacture of concrete products.

202,788.—A. E. White (American Arch Co.): Construction of brick arches for furnaces.

202,791.—J. Ridgway and W. Ridgway & Sons, Ltd.: Wood-boring tools.

202,799.—S. T. Harrison and A. C. Harrison: Machines for sifting potters' slip.

202,831.—W. Marshall and C. Downs: Machinery or apparatus for compressing and moulding meal and other soft or plastic materials.

202,850.—W. Story: Glazing of roofs.

202,856.—S. W. Mobbs: Groynes or walls for coast protection.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

KIDDERMINSTER HOUSE BUILDERS, LTD. (193,081). Registered October 15. 11, High-street, Kidderminster. Contractors, builders, civil constructional, mechanical, electrical and general engineers, &c. Nominal capital, £1,000.

C. PEPPIATT (WORTHING), LTD. (193,097). Registered October 16. The Estate Office, Lynton-road, Springfield Park, Acton, W. Builders and contractors, &c. Nominal capital, £3,000.

HEW BRICK WORKS, LTD. (193,181). Registered October 18. 125, Mason's-hill, Bromley, Kent. Bricks, tiles, pipes, &c. Nominal capital, £1,000.

PENNANT STONE QUARRIES, LTD. (193,165). Registered October 18. Quarry owner, lime burner, stone and lime merchant, contractor, farmer and blacksmith, now carried on by Thomas Rhys Williams at Nine Mile Point and Cross Keys, Monmouth, under the style of Evans Bros. Nominal capital, £10,000.

S. R. HENSHAW & SON, LTD. (193,178). Registered October 18. 14, Colquitt-street, Liverpool. Plumbers, painters, decorators, builders and contractors, formerly carried on at 14, Colquitt-street and 57–59, Seel-street, both in Liverpool, under the style of S. R. Henshaw & Son. Nominal capital, £4,000.

EUGENE C. TOMKINS, LTD. (193,194). Registered October 19. Zetland Buildings, Middlesbrough, Yorks. Quarry proprietor and iron and steel merchant, now carried on by Eugene Carter Tomkins, at Middlesbrough, Yorks, under the style of Eugene C. Tomkins. Nominal capital, £6,000.

A. SPENCER, LTD. (193,179). Registered October 18. 208, High-street, Merton, S.W.19. Builders' merchants, timber merchants, &c. Nominal capital, £100.

COMMERCIAL STRUCTURES, LTD. (193,221). Registered October 20. Builders and contractors, &c. Nominal capital, £1,000.

POWELL & RAYBOULD, LTD. (193,207). Registered October 19. Builders and contractors, carriers, &c. Nominal capital, £1,000.

HOOD & CO. (BUILDERS), LTD. (192,807). Registered October 1. Rosemary, Grosvenor-road, Southampton. Builders and contractors, &c. Nominal capital, £500.

RICHMOND LAND DEVELOPMENT CO., LTD. (192,953). Registered October 8. 7, Hill-street, Richmond, Surrey. Property dealers, builders, contractors, &c. Nominal capital, £25,000.

ELLIS, PARTRIDGE & CO. (LONDON), LTD. (192,898). Registered October 5. Gordon House-road, Kentish Town, London. Slate and timber merchants, slating and tiling contractors and brick manufacturers, heretofore carried on by Ellis, Partridge & Co., Ltd., at Gospel Oak, and Leyton, London. Nominal capital, £10,000.

ISAAC DIXON & CO., LTD. (193,024). Registered October 11. Constructional engineers, iron, steel, and timber roof and building manufacturers, &c. Nominal capital, £4,000.

J. U. JONES, LTD. (192,808). Registered October 1. Builder and contractor, now carried on by James Urban Jones at Edgwick-road, Foleshill, Coventry. Nominal capital, £2,000.

EARLSFIELD CONSTRUCTION CO., LTD. (192,897). Registered October 5. 70, Victoria-street, Westminster, S.W.1. Contractors, sanitary builders, constructional engineers, &c. Nominal capital, £1,000.

HOLLINWORTH & SON, LTD. (192,979). Registered October 9. Builder and contractor, now carried on by John Hollinworth at Miller-street, Worsley-road, Patricroft, Lancaster, under the style of J. T. Hollinworth & Son. Nominal capital, £15,000.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/10
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BINGLEY.—Erection of 48 houses, near Old Cottingley Bar House, for the U.D.C. :—
*J. H. & T. Cooper, Shipley.

BRISTOL.—Erection of 50 houses, for the Housing Committee of the Corporation :—
Fishponds site—
*E. R. Dyke—14 parlour houses, at £387 each
*E. R. Dyke—4 non-parlour, at .. 325 „
*J. J. Cunningham—12 parlour houses, at ..... 395 „
Knowle site—
*E. A. W. Poole & Sons—12 parlour (including wiring and electric light) ..... £391 6 5 each
*A. W. Norris—9 parlour (including wiring and electric light) ..... 386 6 5 „

CARNARVONSHIRE AND ANGLESEY.—Erection of a new wing to the Institution as a war memorial :—
*John Laing & Sons, Liverpool.

LEEDS.—For cast-iron and other pipes, for the Water Department of the T.C. :—

*Stanton Ironworks Co., Ltd.—	
34 in. cast-iron pipes	£1,240 12 9
Cochrane & Co., Ltd.—400 18 in. concrete-lined pipes.. each	8 7 0
Clayton, Son, & Co., Ltd.—	
Steel pipes	4,376 1 9
Extra for covering the pipes with Hessian cloth.....	100 0 0

LEEDS.—Erection of house in Bentley-lane, for the T.C. :—
*T. Morley & Son..... £500

LETCHWORTH.—Erection of elementary school at West View, Letchworth, for the Hertfordshire C.C. :—
*Markwell, Holmes & Co., Grimsby.. £12,051

LONDON.—For re-erection of statue of Sir Rowland Hill in King Edward-street, for the City Corporation :—

J. Whitehead & Sons, Ltd.....	£250
John Mowlem & Co., Ltd.....	188
Trollope & Colls, Ltd. (approx.).....	182
*John Daymond & Son, Ltd.....	145
(Plus £25 for thoroughly cleaning and re-bronzing the statue.)	

LONDON.—For supply of stone crusher to the Bermondsey B.C. :—

R. Broadbent & Sons.....	£570
*W. H. Baxter, Leeds.....	460
F. Parker	389
H. Alexander & Co.....	375

CHISWICK.—For laying bituminous jointed pipes for High-road surface water drainage, for the U.D.C. :—

	Consolidated Construction Co.	Howard Farrow.	Davidson & Sykes, Shearman Bros., Westminster, S.W.1.	Cambridge.	F. Kellett.
Alternative Section A	£785 15 9 ..	£680 0 0 ..	£531 8 8 ..	*£436 16 6 ..	£560 0 0
„ B	2,083 6 8 ..	1,918 0 0 ..	*1,421 13 6 ..	1,424 13 2 ..	1,545 0 0
„ C	1,208 12 9 ..	1,036 0 0 ..	832 7 0 ..	*737 2 7 ..	891 0 0
„ D	1,046 14 1 ..	1,072 0 0 ..	*742 10 0 ..	782 9 10 ..	860 0 0
„ E	848 4 3 ..	888 0 0 ..	*698 9 0 ..	703 9 5 ..	672 0 0
„ F	2,227 15 9 ..	2,084 0 0 ..	1,560 16 0 ..	*1,523 3 2 ..	1,765 0 0
„ G	3,354 17 0 ..	2,926 0 0 ..	*2,185 7 0 ..	2,299 19 1 ..	2,760 0 0
	11,555 6 3 ..	10,599 0 0 ..	7,972 11 2 ..	7,907 13 9 ..	9,053 0 0
Total provisions	2,166 1 4 ..	2,033 0 0 ..	2,033 8 10 ..	2,034 0 0 ..	2,161 12 0
Total Estimate	£13,721 7 7 ..	£12,632 0 0 ..	£10,006 0 0 ..	£9,941 13 9 ..	£11,214 12 0

DONCASTER.—For Rossington sewer extension, for the R.D.C. :—

J. Done.....	£585 0 0
C. Sprakes & Sons	580 4 0
Smith & Hunter (Scunthorpe), Ltd.	522 9 9
R. Moate & Sons.....	496 2 6
S. Porter & Sons.....	412 13 0
Firth & Whittington, Ltd.....	388 10 0
A. Storey	367 4 0
T. Jenkinson & Sons	366 3 0
*Clements, Button & Clements..	361 18 11

DONCASTER.—For construction of roads, &c., from Bennetthorpe to Chequer-road, for the T.C. :—
*Edwards & Co., Doncaster.... £16,779 5 2

DUMBARTONSHIRE.—Erection of 150 houses at Twechar, Kilsyth, to house the firm's own workpeople :—
*William Baird & Co.

EARLSTOWN AND NEWTON.—For the erection of 40 houses, for the U.D.C. :—
*J. H. Bardsley, Manchester..... £15,500

EASTRY.—Supply of materials to the R.D.C. :—
*Wingham Engineering Co., clinker, 450 yds., at 4s. 6d. per yd.; second grade rock, 900 yds., at 7s.
*R. Brett & Son, flints, 600 yds., at 12s.
*A. E. Blunt, steam rolling, 4s. 8½d. an hour.
*H. Tritton, drainage, £29 16s.
*Bristowe's Tarvia, Ltd., tar macadam, 6s. 4½d. per yd. (three years' maintenance).

EPPING.—For repairs to roof of workhouse, for the B.G. :—
B. Cowlin & Sons, Epping £337 9 6

GILLINGHAM.—For painting at hospital, for the T.C. :—
*Neale & Blackman..... £325 15

HOVE.—For making-up Avondale-road, for the T.C. Mr. H. H. Scott, Borough Surveyor, Town Hall, Hove :—
R. D. Swinford, Ltd., Woking .. £554 17 2

KEIGHLEY.—For supplying and fixing a transmission line, including 36 ft. poles, from a point near Vale Mills, Oakworth to Townend Mill, Haworth, for the Keighley Electricity Committee :—
*Craven and District Private Telephone & Electric Co., Ltd..... £415

KEIGHLEY.—Redecoration of bath hall and adjoining rooms, for the Keighley B.G. :—
*John Petty, Keighley £559

KEIGHLEY.—Supply, delivery and fixing of an electrically-driven extractor, for the B.G. :—
*F. Watson, Keighley £203 15

LEEDS.—For repairs to houses on the Cross Gates Housing Estate, for the T.C. :—
*W. Airey & Son—
Stucco coating to 58 houses £933 15 0
Tiling roofs of 54 houses .. 2,777 19 3

LONDON.—For laying 7,000 yds. of wood paving at Perry Hill, for the Lewisham B.C. :—

	Per yd. super. s. d.
Henry Woodham & Sons, Ltd.....	13 11½
Wm. Griffiths & Co., Ltd.....	13 0
John Mowlem & Co., Ltd.....	13 0
Improved Wood Pavement Co., Ltd.	12 11
*Acme Flooring & Paving Co. (1904), Ltd.	12 8

LONDON.—For propagating pits and greenhouses at Fairby Grange, for the Bermondsey B.C. :—

	(A).	(B).
Messenger & Co., Ltd., Loughborough (exclusive of builders' work)	£279 2 6..	£741 17 6
Carter & Howard, Raynes Park.....	600 0 0..	1,800 0 0
A. Overend & Sons, Streatham	542 0 0..	1,534 0 0
Wm. Harbrow, Ltd., South Bermondsey	595 0 0..	1,360 0 0
Wm. Duncan Tucker & Sons, Ltd., S. Tottenham	535 0 0..	1,233 0 0
W. Nairn, Hartley	400 0 0..	1,185 0 0
A. J. Bartlett, Bromley ..	420 0 0..	1,125 0 0
Wm. Wood & Son, Ltd., Taplow	375 0 0..	1 050 0 0
*A. Harris, Ealing	359 14 11..	*953 17 5

(A) was for two span-roof propagating pits, each 50 ft. by 12 ft., to be served by existing boiler; and (B) as for (A), with addition of two adjoining span-roof greenhouses, each 50 ft. by 14 ft. Tender (B) was accepted.

LONDON.—For wood paving (approx. 10,500 yds. super) in Lewisham High-road, for the Deptford B.C. :—

	Per yd. super s. d.	
Henry Woodham & Sons, Ltd.	14 2½ ..	£7,459 7 6
Wm. Griffiths & Co., Ltd.	13 7 ..	7,131 5 0
Acme Flooring & Paving Co., Ltd.	13 3 ..	6,956 5 0
J. Mowlem & Co., Ltd.	13 0 ..	6,825 0 0
W. Manders & Co.	12 11 ..	6,781 5 0
*Improved Wood Pavement Co., Ltd.	12 10 ..	6,737 10 0

LONDON.—Installation of mechanical stokers, a coal elevator and conveyor, &c., required in connection with new boilers at Abbey Mills pumping station, for the L.C.C. :—

W. J. Jenkins & Co., Ltd., Retford	£3,805 10
Underfeed Stoker Co., Ltd., Derby	3,158 0
Edward Bennis & Co., Ltd., Bolton	2,245 0
Do. (Alternative tender)	2,470 0
T. & T. Vicars, Ltd., Earlestown, Lancs	2,420 0
James Hodgkinson (Salford) Ltd., Salford	2,275 0
*Meldrums, Ltd., Manchester	2,220 0
James Proctor, Ltd., Burnley	2,028 0
Triumph Stoker, Ltd., Leeds (tender incomplete)	1,375 0

LONDON.—For plastering walls and redecoration work, &c., to ward and annexes at Chelsea Infirmary, for the B.G. Mr. Edmund J. Harrison, architect, 23, Berkeley-road, Crouch End, N.8 :—

Clements, Ltd., Grays	£1,100 0 0
T. W. Heath, Ltd., Kensington	1,045 0 0
R. J. Rowley, Tottenham	919 0 0
J. L. Catterall, London.....	905 0 0
L. Lown & Co., Holloway.....	895 0 0
H. A. Thomas, Dulwich.....	850 10 0
Forward & Sons, Ltd., London..	843 3 0
H. G. Morgan, Holloway.....	797 4 6
White & Johnson, Chelsea....	750 0 0
Barnes & Co., London.....	675 0 0
W. Palmer & Son, London....	675 0 0
Mayfair Services, London.....	666 0 0
J. C. Mather, Islington.....	641 0 0
W. Chappell, London.....	565 0 0
*H. Parkinson & Co., Camberwell	519 0 0

LONDON.—For carrying out of various works, for the Parks Committee of the L.C.C. :—
Finsbury Park—Repairs to carriage road—

John Mowlem & Co., Ltd., Westminster	£2,602
Henry Woodham & Son, Ltd., Catford	2,178
G. J. Anderson, Poplar.....	2,092
George Bell & Sons, Ltd., Tottenham..	1,683
Mears Brothers, Lewisham.....	1,655
*Howard Farrow, Golder's-green.....	1,474

Wandsworth Common—Renovation of surfaces of bare areas and extensions of cricket field—

George Bell & Sons, Ltd., Tottenham..	£2,094
Mears Brothers, Lewisham.....	1,708
Howard Farrow, Golder's green.....	1,620
*R. Neal & Sons, Wandsworth.....	1 550

Bethnal Green-gardens—Re-formation of footpath and extension of playing area—

Mears Brothers, Lewisham.....	£938
R. Neal & Sons, Wandsworth.....	902
Howard Farrow, Golder's-green.....	864
G. J. Anderson, Poplar.....	858
*George Bell & Sons, Ltd., Tottenham..	774

Hackney Marsh—Formation of ash surface to fair ground—

G. J. Anderson, Poplar.....	£2,614
R. Neal & Sons, Wandsworth.....	2,500
George Bell & Sons, Ltd., Tottenham..	2,482
Howard Farrow, Golder's-green.....	2,400
*Mears Brothers, Lewisham.....	2,293

Finsbury Park—Laying out of dry playing area—

R. Neal & Sons, Wandsworth.....	£1,900
*Howard Farrow Golder's-green.....	1,670

Victoria Park—Regulating and resurfacing roads—
*Tarmac, Ltd., at schedule of prices.

MAIDSTONE.—For work at showrooms and offices, for the Electricity Department of the T.C. :—

Messrs. Cruttenden	£539
Barden & Head	526
Elmore & Son	525
Wallis & Sons	520
Cox Brothers	510
*R. Corben & Son.....	490

MALVERN.—Supply, delivery and fixing of switch gear at the Electricity Works, for the Electricity Committee :—
*Ferguson, Pailin & Co., Ltd. £1,027 14

MARSHLAND.—For erection of six houses in pairs, Clenchwarton, for the R.D.C. Mr. L. F. Eagleton, architect, 38, King-street, King's Lynn. Quantities by architect :—

	Per pair.
J. J. Bone & Son, King's Lynn ..	£1,100 0
F. W. Ashby, Ltd., Downham Mkt.	916 0
J. Medwell & Sons, King's Lynn....	912 0
H. W. Barnes, King's Lynn.....	910 0
T. Ives & Sons, King's Lynn.....	900 0
H. Rilett, Terrington St. Clement..	898 10
H. Reeder & Son, Tilney All Saints	890 0
A. F. Foreman & Sons, King's Lynn	857 10
W. Wright, Terrington St. Clement	845 0
J. H. Johnson & Sons, Wisbech....	830 0
Hornigold & Morton, Terrington St. Clement	750 0
*T. J. Jupp, Wisbech.....	722 10

MORLEY.—For the following repairs and road works, for the Highways Committee of the Corporation :—

Painting and repairs to road roller—	
*T. Green & Sons, Ltd., Leeds..	£87 10 0
Construction of Middleton-road extensions, with Elland Edge stone kerb and footpaths—	
*Harrison Spenseley & Sons, Morley.....	7,807 19 0
Paving of Churwell Hill (a percentage of local unemployed labour to be used)—	
*R. Beumont & Co., Honley	2,409 10 9

NEWPORT (MON.).—For carrying out an extension of the St. Julian-road, for the Newport Corporation :—
*G. F. Leadbeter, Newport £3,985

PLYMOUTH.—For repairs to the Devonport Guildhall, for the T.C. :—
*Carkeek & Son..... £3,773

SHEFFIELD.—Erection of conveniences at Woodseats, for the Corporation :—
*S. Higton & Son, Sheffield £805

SHEFFIELD.—Supply, delivery and construction of 11 mild steel fuel storage tanks at Singapore Naval Base, for the Admiralty :—
*Newton, Chambers & Co., Sheffield.

SOUTHEND-ON-SEA.—For the iron and steel work required in connection with the provision of additional lavatory, cloak room and kitchen accommodation at the Pavilion, for the T.C. :—

*Sandford & Co.—*Cast-iron work*.... £58 10
*Somerfield, Bernard & Co.—*Steel work* 157 10

STRETFORD.—For making-up passages in (*a*) Carlton-street; and (*b*) path St. John's-road, for the U.D.C. :—

*Bethell & Sons.. (*a*) £234; and (*b*) £118 18 6

WAKEFIELD.—For the reconstruction of public conveniences at the cemetery, for the T.C. :—

*W. Judge, Wakefield..... £422 4 10

WALSALL.—For constructing (*a*) sewer between Charlemont-road and Birmingham-road; and (*b*) in Stafford-road, for the T.C. :—

*J. & F. Wootton, Ltd...(*a*) £344 15; and (*b*) £296 18 4

WHITBY.—Erection of a War Memorial Cottage Hospital :—

*R. A. Wilson & Son, Whitby.

YORK.—For the adaptation of the old Subscription Library premises, for the T.C. :—

*W. Usher £1,702 17 6

YORK.—For provision of conveniences at Harker's Hotel, for the T.C. :—

*W. Birch & Sons..... £110 17 6

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National Association of Builders' Labourers.

A private conference of the National Association of Builders' Labourers, attended by over 100 delegates, was held at Middlesbrough recently, at which it was announced that after considerable delay,, the Association would from January next be merged, with other bodies connected with the trade, into the Builders' Labourers' and Constructional Workers' Society.

At a dinner which followed, Mr. J. W. Welsh, of Middlesbrough, general secretary of the existing organisation, said they had endeavoured with much success to lift the builders' labourers to a higher plane, and he trusted the amalgamation would be an inspiration for unity. The chair was occupied by Mr. J. Cavanagh (President of the Association), who said it would not be long before there would be one union for all engaged in the building industry.

"Punch's" Almanack for 1924.

The receipt of *Mr. Punch's Almanack* (price 1s.) reminds us somewhat suddenly that the festive season is upon us, and we welcome it. The issue is full of good things, including many pages of coloured illustrations.

Astley-Ainslie Institution.

Canaan Park House, the first unit of the Astley-Ainslie Institution for the reception of convalescent patients from Edinburgh Royal Infirmary, an important scheme for which there is now available about £600,000, was formally opened on Saturday afternoon. The scheme is the outcome of the beneficence of Mr. David Ainslie, of Costerton, Midlothian, who died in 1900, and who directed that the residue of his large estate should accumulate for fifteen years for the purpose. The conditions of the will specified that the buildings should be of stone, and that they should follow the design of Watson's Hospital at Belford Bridge, and Mr. John Jerdan, F.R.I.B.A., to whom the architectural work has been entrusted, has practically reconstructed the original property. The building, which consists of two stories, has accommodation for 34 patients, 14 indoors in each ward and three on each of the open-air verandahs, which are a feature of the wards.

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